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THE EFFECT OF DIMENSIONS AND DYNAMIC
IMBALANCE OF PROJECTILES UPON BALLISTIC
PERFORMANCE

A. S. Jennings

Naval Weapons Laboratory
Dahlgren, Virginia

November 1973

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PROJECTILES UPON BALLISTIC PERFORMANCE**

A. S. Jennings

Engineering Department



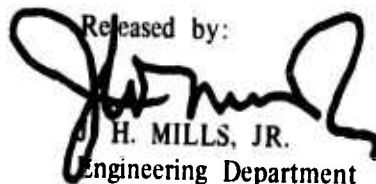
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FOREWORD

This study was conducted at the request of NAVORD ltr ORD-0841/356:ANC of 23 October 1970. It is part of the design agent work being done at NWL. The main purpose was to determine if specific physical characteristics of a projectile have an effect upon its ballistic performance. The ultimate goas was to correlate laboratory tests and dimensional inspection data with ballistic tests in order to substitute laboratory tests or body measurements as an acceptance criteria in lieu of the current ballistic testing. This report summarizes the testing and analysis on selected physical parameters.

Released by:

A handwritten signature in black ink, appearing to read "J. H. Mills, Jr.", is written over the printed name.

J. H. MILLS, JR.

Engineering Department

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Dynamic imbalance can be predicted fairly well by knowing the total indicated reading (eccentricity) of the projectile cavity at several locations. Further studies of this type are needed to define a complete set of parameters which would insure acceptance in ballistic tests.

ABSTRACT

The dynamic imbalance and physical dimensions were measured on a number of 5"/38 MARK 66 MOD 0 projectiles. These projectiles were ballistic tested. Statistical techniques were used to correlate ballistic performance with measured projectile characteristics. A dynamic imbalance of 10 inch-ounces or less does not have a significant effect upon the ballistic performance of the subject projectile. Three of the projectile body dimensions had effect upon ballistic performance of the projectiles for the range of data analyzed. Dynamic imbalance can be predicted fairly well by knowing the total indicated reading (eccentricity) of the projectile cavity at several locations. Further studies of this type are needed to define a complete set of parameters which would insure acceptance in ballistic tests.

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I. INTRODUCTION

Naval projectile bodies are ballistic tested at the Naval Weapons Laboratory to determine if a lot of projectiles are of acceptable quality. Five projectiles (inert loaded and fitted with a dummy nose plug) are tested from each lot of projectiles. A lot is defined as a group of 500 projectiles manufactured by a vendor. The sample of five projectiles from a lot is selected at random and is representative of the lot.

The D/R ratio (Dispersion/Range) is used as an acceptance criterion. This ratio is determined from the ranging data of five ballistic tests and is computed for each lot. D/R is defined as the mean deviation divided by the mean. This parameter is a measure of relative variation of the range for a given lot. The range is the distance from the gun to the impact point of the projectile.

In order to compute D/R it is necessary to compute a corrected range (R_c) for each test. Corrected range is the actual range which has been standardized to standard conditions of ballistic density, range wind, initial velocity, and impact height.

D/R is computed as follows:

$$D/R = \left[\frac{1}{N} \sum_{c=1}^N |R_c - \bar{R}| / \bar{R} \right] 100$$

where

R_c = corrected range
 \bar{R} = average corrected range
 N = number of tests

A lot of projectile bodies is accepted from the vendor if the D/R is 0.70% or less; otherwise, the lot is rejected or a retest is conducted.

The ballistic test criterion described above is a fair acceptance test for projectile bodies but it does not provide necessary information for the manufacturer to determine the quality of the projectile before ballistic testing.

This study was conducted to investigate the sensitivity of ballistic data to several projectile body physical parameters. The goal was to find parameters that would either eliminate or decrease the ballistic tests that are conducted by the Navy and would enable the manufacturer to check for the conformance of the ammunition to documentation. Three factors were considered: (1) dynamic imbalance, (2) dimensional inspection of the projectile body, and (3) the correlating of dynamic imbalance and dimensional data.

II. DESCRIPTION OF MATERIAL

The projectile bodies used in this study were shipped to the Naval Weapons Laboratory for ballistic acceptance tests. They are 5"/38 MARK 66 MOD 0 projectiles manufactured by Landsdowne Steel and Iron Corporation, Morten, Pennsylvania. Figure 1 shows the projectile body configuration. The projectiles were manufactured under contract number N0010468C5481. Projectiles from lots 33-197 are included in this study. Lots 1-33 were not included due to the fact that the production of the subject projectile had reached lot 32 when this program was initiated. The dynamic imbalance study encompassed lots 33-197, which was 824 projectiles. Lots 62-96 (155 projectiles) were included in the dimensional inspection study.

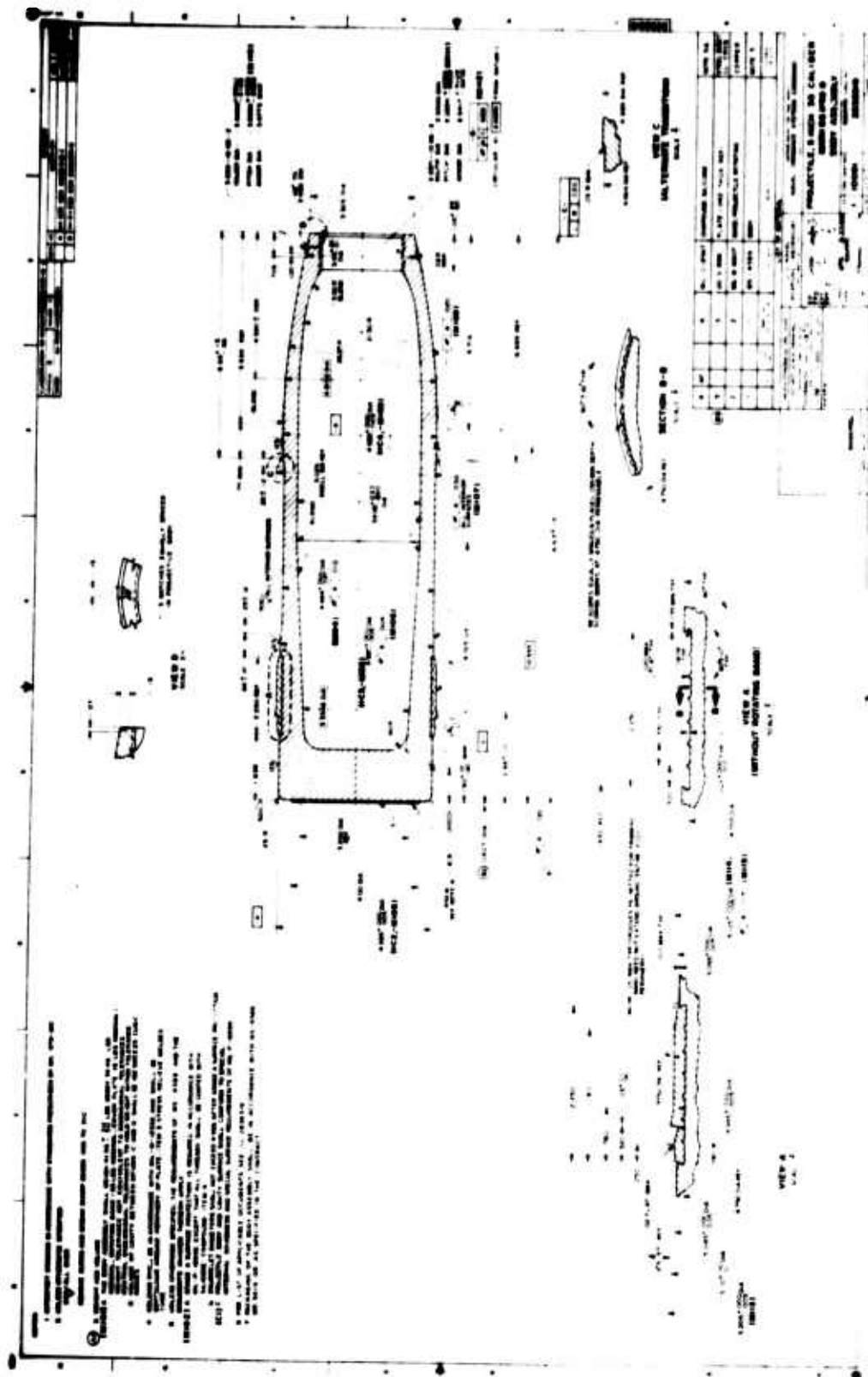


FIGURE 1

Drawing of a 5"/38 Mk 66 Mod 0 Projectile Body

III. TESTS AND PROCEDURES

A. Dynamic Imbalance Test

This test was conducted on a Gisholt balancing machine shown in Figure 2. The projectile is placed on two sets of rollers such that the rollers contact the projectile at the aft and forward bourrelets. Figure 3 shows distances between the rollers and the projectile base. A paper band (see Figure 2) graduated in 5° increments is placed on the periphery of the projectile to obtain the angular location of imbalance (heavy side). Angular locations were the same for a given projectile in the empty and inert loaded condition.

The projectiles are rotated at a speed of approximately 850 RPM (a 5"/38 projectile exits the gun at 12,500 RPM). Dynamic imbalance is measured at the rear bourrelet (called right plane) and at the forward bourrelet (called left plane). This imbalance is expressed in inch-ounces. A stroboscope is used to measure the angular location of imbalance from the paper band. This angle is measured for each plane and then the angle of separation between imbalance of the two planes is determined disregarding the direction. Consequently, the angle of separation of imbalance is always 180° or less.

Dynamic imbalance, angle of separation, and center of gravity was measured on 824 projectiles. These data were taken on the empty projectile bodies and also on the projectiles after preparation for ballistic testing which includes inert filling the cavity and installing a dummy nose fuze. The data are given in Appendix A with ballistic results for each test.

B. Dimensional Inspection of Projectile Bodies

Numerous measurements were taken on the body in order to obtain a good dimensional interpretation. A Cordax measuring machine (Figure 4) was utilized to take the measurements. This machine has a movable probe which can be moved in the X, Y, and Z planes. A computer is coordinated with the machine for computations.

The projectile is placed in a modified lathe chuck and aligned so that the bourrelets are true within 0.001 prior to measuring. All measurements were taken with the bourrelets as reference points. Figure 5 shows the measurements and their locations.

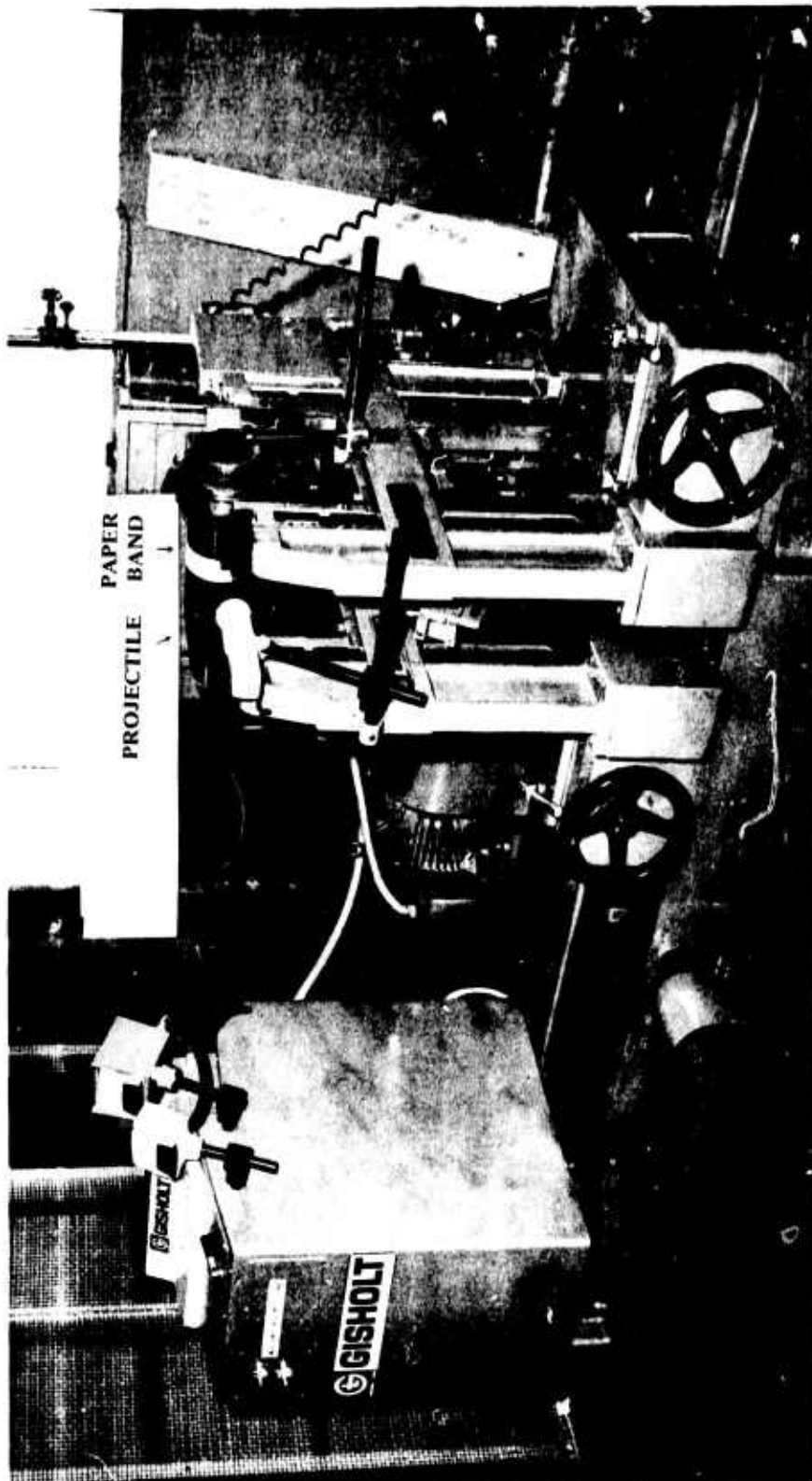


FIGURE 2
Dynamic Imbalance Testing Machine With Projectile Body on Machine

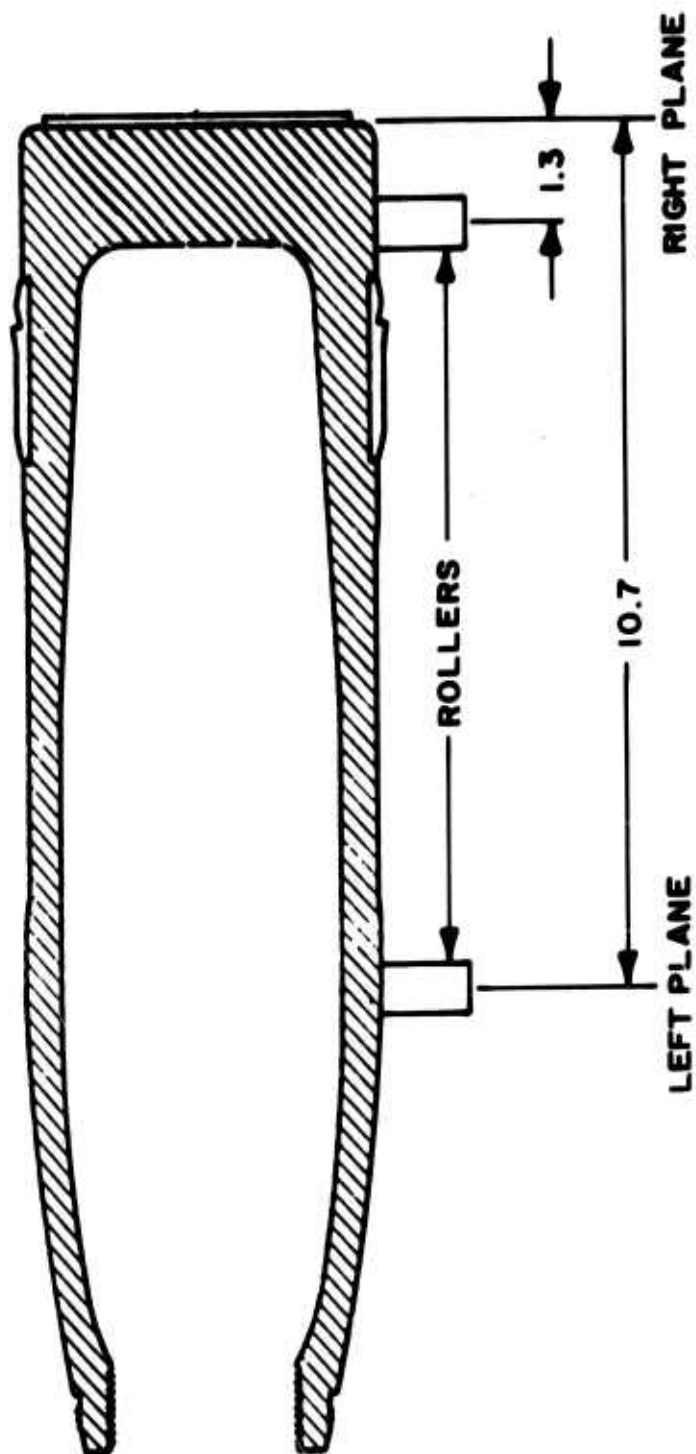


FIGURE 3

5"/38 Projectile Dynamic Balancing Set-Up

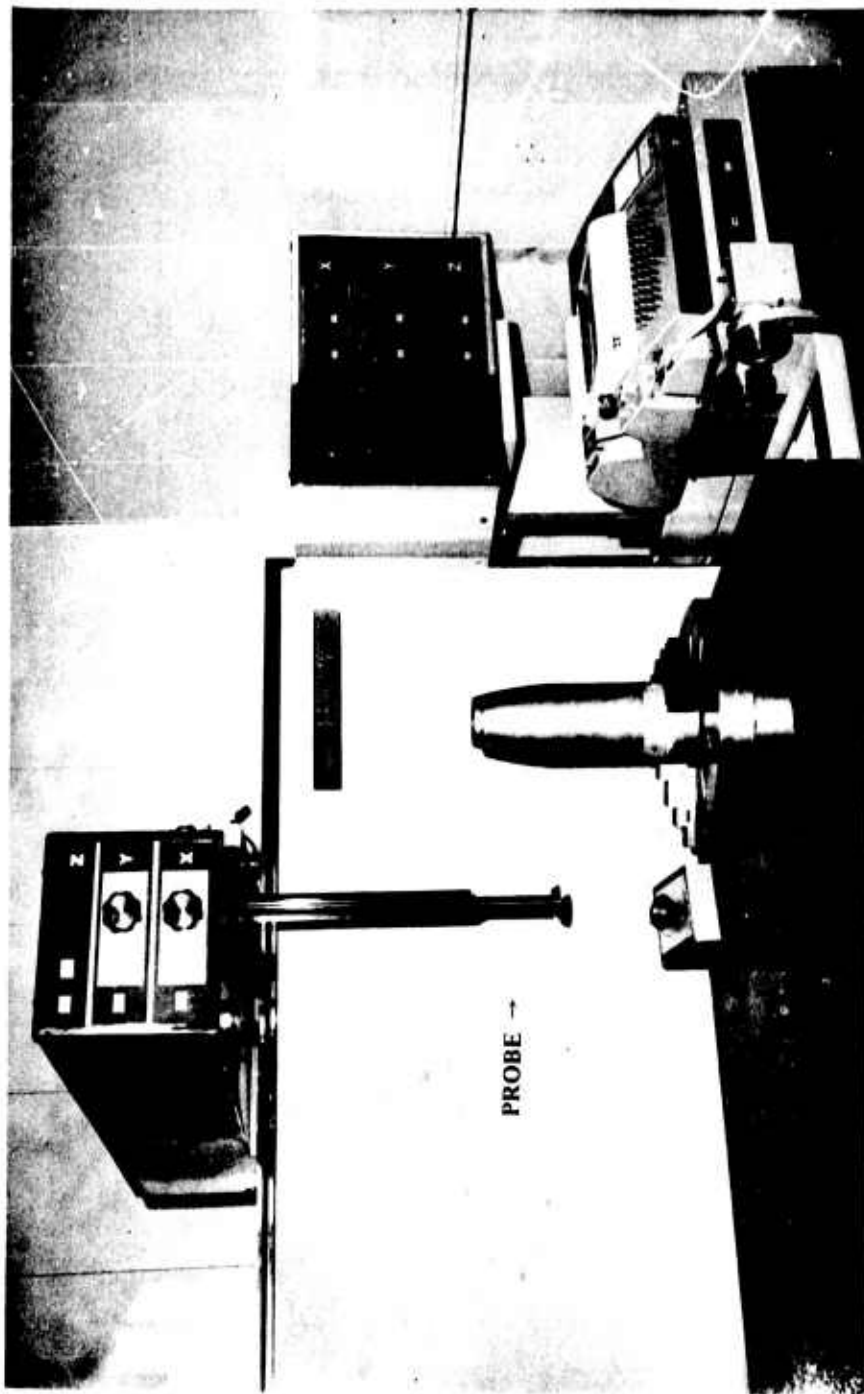


FIGURE 4
Gauging Machine Set-Up for Measuring Projectiles

The total indicated reading (TIR), may also be called eccentricity, was computed as shown in Figure 6. This TIR was computed from the X-act and Y-act data given in Appendix B. It was computed at various locations within and outside the projectile. However, the outside TIR did not vary to any degree due to the aligning on the bourrelets.

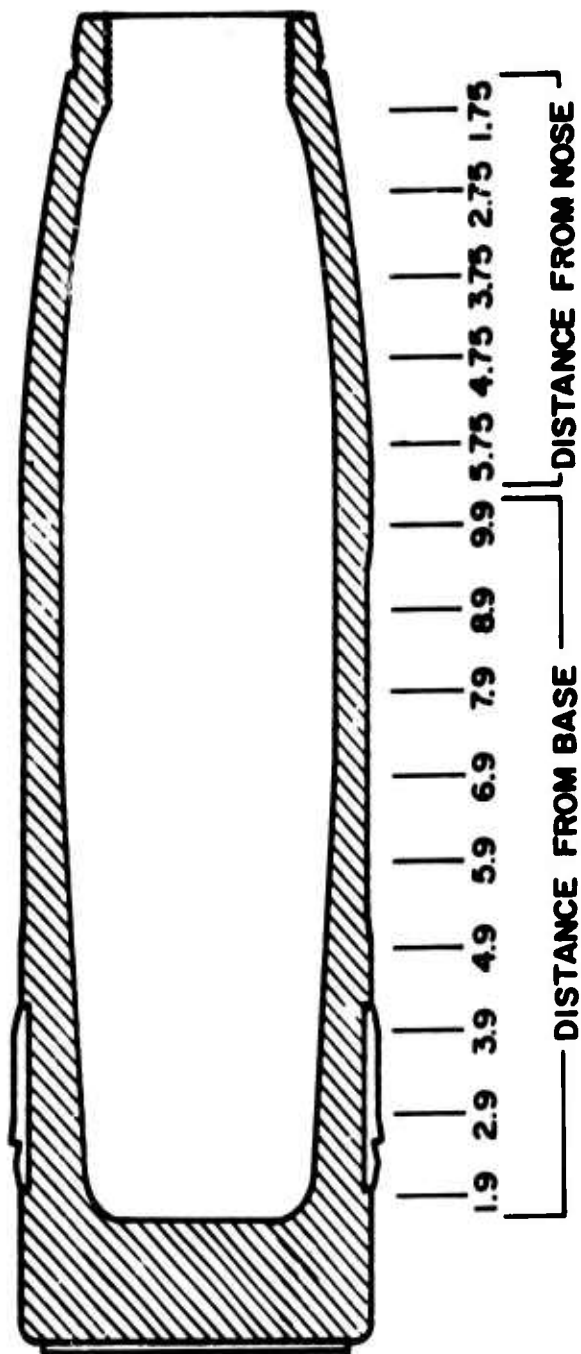
Data in the Z3 category of Appendix B was used to compute the angle of the nose threads (threads for nose fuze) relative to the bourrelets. It was thought that a misaligned fuze would cause the projectile to be unstable in flight. Figure 7 shows an adapter which was placed in the nose to facilitate taking measurements at the L_1 and L_2 positions. Trigonometric functions were used to compute the thread angle relative to the bourrelets.

Data were obtained from the Cordax machine and then processed via computer to facilitate later analysis. These data are given in Appendix B for the 155 projectiles inspected.

C. Ballistic Tests

The projectiles which were dimensionally inspected and had the dynamic imbalance measured were ballistic tested at NWL. Appendix A gives the meteorological data, lots tested, and date of ballistic testing. Initial velocity, range (yards), and drift (yards) were also measured for each test. All tests were conducted at 15° gun elevation.

Lots 62-96 were included in the dimensional inspection study. These projectiles were ballistic tested on four days. Lots 33-197 were included in the dynamic imbalance study. These projectiles were ballistic tested on 17 days.

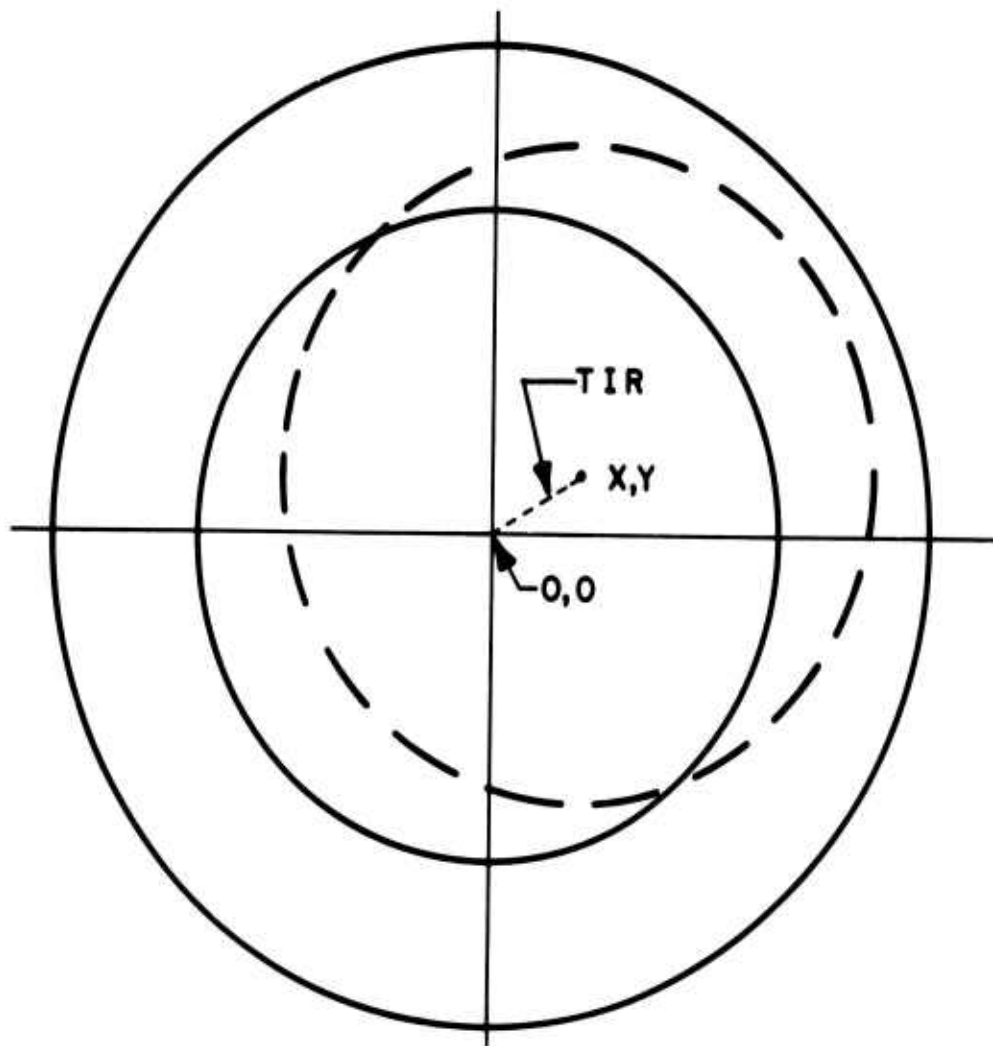


MEASUREMENTS AT EACH LOCATION: OUTSIDE TIR, OUTSIDE DIAMETER, INSIDE TIR, INSIDE DIAMETER

OTHER MEASUREMENTS: BASE THICKNESS, TOTAL LENGTH

FIGURE 5

Location of Projectile Measurements



$$TIR = \sqrt{X^2 + Y^2}$$

FIGURE 6

Transverse Section of a Projectile Showing
Normal Inside Wall and an Off Center Inside Wall

IV. ANALYSIS AND RESULTS

Statistical techniques such as regression analysis and analysis of variance were utilized to analyze the data of the two studies. Analyses of the two studies will be discussed separately even though the approach was nearly identical. Then relationships between the two studies will be discussed. Three criteria were used to evaluate the importance of the variables under study; they are: (1) The standard error, (2) multiple correlation coefficient, and (3) the F-ratio. It was decided that a variable should meet the criteria of all three tests before it would be considered significant in its influence upon ballistic range. The standard error should decrease, the multiple correlation coefficient should increase, and the F-ratio should be significant in order that a variable be considered to have an influence upon ballistic range.

It is known from previous work that weather conditions and initial velocity have an influence upon the range of a projectile. Therefore, the first step in each study was to remove the effect of weather and initial velocity and then determine if additional variables can be added to a model from a statistical standpoint. If additional variables can be added to the model then they have an effect upon the ballistic performance as measured by the range.

A. Dynamic Imbalance

Dynamic imbalance data are shown in Appendix A. These data were gathered on 824 projectiles. These projectiles were ballistic tested and the ranging data obtained. Figures 8 and 9 show histograms of inert loaded imbalance data given in Appendix A.

Statistical analysis of the data (Table 1) showed that neither right imbalance, left imbalance, separation angle, or center of gravity of inert loaded projectiles have an important effect upon ballistic range of this projectile for the range of data studied. It can be seen from Table 1 that the standard error decreased markedly by adding ballistic density, initial velocity, range wind, and cross wind to the model to a value of 71.4. Adding additional variables to the model did not appreciably lower the standard error.

The multiple correlation coefficient (mcc) increased substantially by adding ballistic density, initial velocity, range wind, and cross wind to the model to a value of 0.960. Note from Table 1 that the adding of the other variables does not increase the mcc. Therefore the adding of the additional variables to the model did not explain any additional variation in the performance of the projectile.

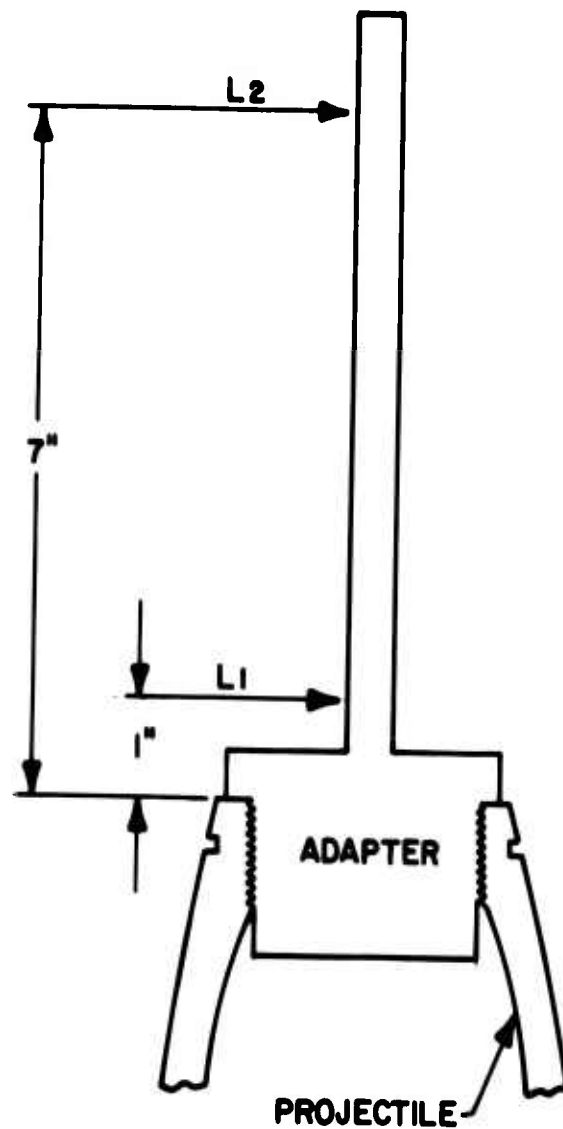


FIGURE 7

Nose Area of Projectile Showing Adapter Inserted for
Taking Measurements

N	824	RANGE	9.83000	COEF. VAR.	.55510
MEAN	2.97027	VARIANCE	2.71954	SKEWNESS	.96253
MEDIAN	2.80000	STD. DEV.	1.64880	NO. OF CELLS	10
MAXIMUM	10.00000	MINIMUM	.20000		

CELL. MID.	FRFQ	
.2000	34	XXXXX
1.2889	198	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.3778	200	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.4667	213	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
4.5556	87	XXXXXXXXXXXXXXXXXXXX
5.6444	57	XXXXXXXXXX
6.7333	21	XX
7.8222	6	X
8.9111	4	X
10.0000	4	X

FIGURE 8

Histogram and Statistics of 5"/38 MARK 66 MOD 0

Projectile Dynamic Imbalance (Right Plane)

N	324	PAUSE	10.03700	COFF. VAR.	.46364
MEAN	4.38786	VARIANCE	4.13869	SKWNESS	.31138
MEDIAN	4.20000	STD. DEV.	2.03438	NO. OF CELLS	10
MAXIMUM	10.20000	MINIMUM	.20000		

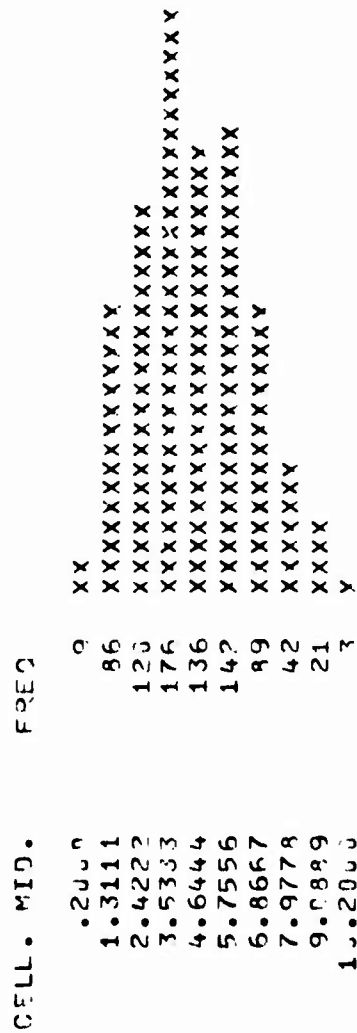


FIGURE 9

Histogram and Statistics of 5"/38 MARK 66 MOD 0
Projectile Dynamic Imbalance (Left Plane)

TABLE 1
ANALYSIS OF DYNAMIC IMBALANCE DATA

VARIABLES IN MODEL										STANDARD ERROR	MULTIPLE CORRELATION COEFFICIENT	F-RATIO (1)
BALLISTIC DENSITY	INITIAL VELOCITY	RANGE WIND	CROSS WIND	RIGHT IMBALANCE	LEFT IMBALANCE	SEPARATION ANGLE	CENTER OF GRAVITY					
X									140.7	.832	7330 ***	
X	X								103.5	.913	1500 ***	
X	X	X							74.6	.956	850 ***	
X	X		X						98.9	.921	157 ***	
X	X	X	X						71.4	.960	78.5***	
X	X	X	X	X					71.0	.960	10.2***	
X	X	X	X		X				71.4	.960	0.7 NS	
X	X	X	X			X			71.4	.960	1.2 NS	
X	X	X	X				X		71.4	.960	0.1 NS	

(1) This F-RATIO is for the significance of the added variable
 *** Significant at 99 percent probability level
 NS - Not significant

Right imbalance was determined to be significant from the standpoint of the F-ratio at the 99 percent probability level. None of the other variables other than weather and initial velocity were significant with respect to the F-ratio. Even though right imbalance was important with respect to the F-ratio it failed to meet the criteria of decreasing standard error and increasing the mcc.

Based upon this analysis it has been determined that a dynamic imbalance of 10 inch-ounces or less does not have a significant effect upon the range of this projectile. The angle of separation between the imbalance of the two planes did not have an effect upon performance either. This angle varied from 0° to 180° . The center of gravity varied from 7.58-7.82 inches from the base and did not have any effect upon ballistic range.

Figures 10 and 11 show the relationship between empty dynamic imbalance and inert loaded dynamic imbalance for the two planes. A small part of the data (170 out of 824) was used here for the scatter diagrams since plots of all the data are not practical. It can be observed from Figure 10 that there is a fair relationship between empty dynamic imbalance and inert loaded dynamic imbalance for the right plane (rear bourrelet). Generally, the inert loaded imbalance is about 1 unit less than the empty imbalance. Figure 11 shows that there is no relationship between empty imbalance and inert imbalance for the left plane (forward bourrelet). There is no proved explanation for this lack of relationship. However, it may be caused by the variation in height of the inert filler within the projectile cavity. The height of the filler within the cavity can be quite variable due to the volume variation of projectile cavities since all the inert loaded projectiles were brought to the same weight for ballistic testing (55.18 pounds).

B. Dimensional Inspection Data

Inspection data are given in Appendix B. These data were gathered on 155 projectiles. These projectiles were ballistic tested and ranging data obtained. These 155 projectiles were a subset of the 824 projectiles of the dynamic imbalance study.

A different technique was required to remove the effect of weather in this study since the ballistic testing was performed on only four days and not 17 as in the imbalance study. Blocking (a statistical technique) was used to remove the day-to-day (or weather) effect. Table 2 shows the analysis. The effect of days was highly significant with respect to the F-ratio. The addition of initial velocity to the model was highly significant with respect to the F-ratio also. This variable also meets the other two criteria by reducing the standard error and increasing the multiple correlation coefficient substantially. Table 2 shows the results of adding the

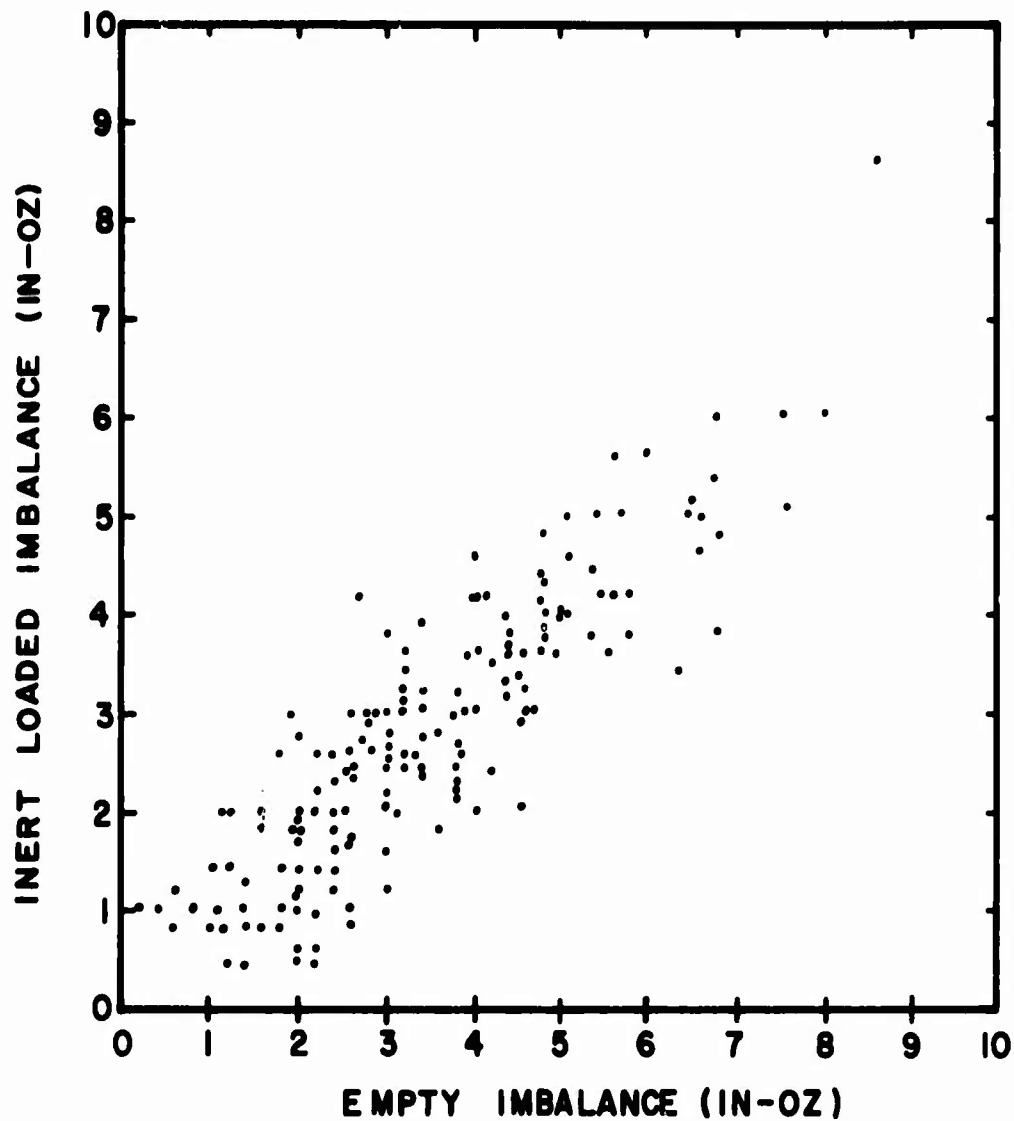


FIGURE 10

**Scatter Diagram of Relation Between Empty Projectile Imbalance and
Inert Loaded Imbalance in the Right Plane (Rear Bourrelet)
for 5"/38 Mk 66 MOD 0 Projectile**

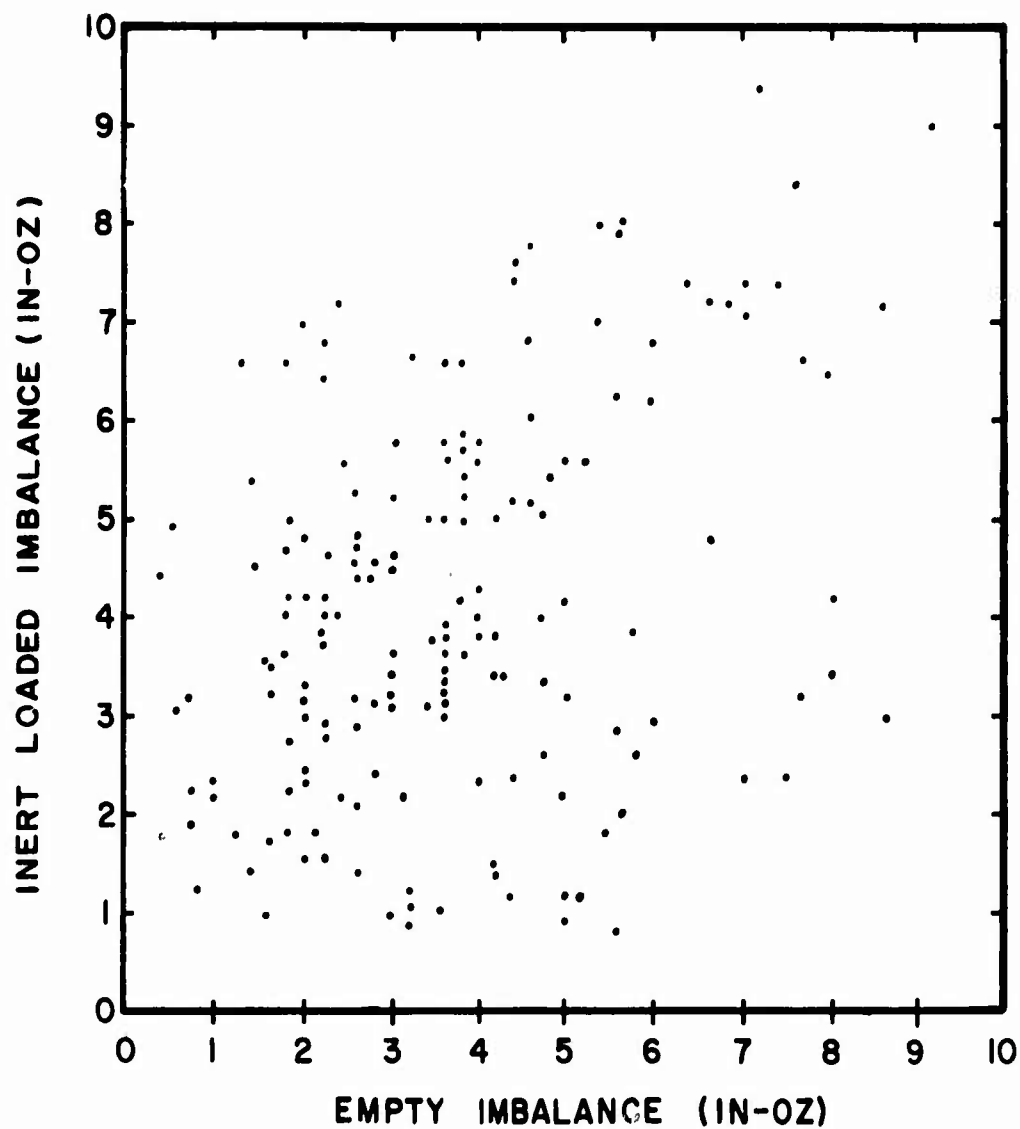


FIGURE 11

Scatter Diagram of Relation Between Empty Projectile Imbalance and
Inert Loaded Imbalance in the Left Plane (Forward Bourrelet) for
5''/38 Mk 66 MOD 0 Projectiles

TABLE 2

ANALYSIS OF DIMENSIONAL INSPECTION DATA

DAYS	VARIABLES IN MODEL						F-RATIO (1)
	INITIAL VELOCITY	FORWARD BOURRELET DIAMETER	INSIDE TIR 3.75 FROM NOSE	PROJECTILE LENGTH	INSIDE TIR 5.9 FROM BASE	STANDARD ERROR	
X						86.5	336 ***
X	X					59.2	185 ***
X	X	X				57.8	8.33***
X	X	X	X			56.5	7.80***
X	X	X	X	X		56.0	3.23*
X	X	X	X	X	X	55.8	2.09 NS

(1) This F-RATIO is for the significance of the added variable

*** Significant at 99 percent probability level

* Significant at 90 percent probability level

four most important dimensions (as selected by the computer program) to the model in addition to days and initial velocity. Three dimensions (forward bourrelet diameter, inside TIR 3.75 from the nose, and projectile length) have a significant effect upon ballistic range. These three dimensions meet the three statistical requirements as discussed earlier and can be seen in Table 2. None of the other dimensions had an effect upon ballistic range for the range of data analyzed. Statistics of the data analyzed are given in Table 3. Appendix C shows histograms and statistics of the measurements. Most of the measurements were fairly normally distributed.

Figure 12 shows the location and order of importance of the three significant projectile measurements with respect to ballistic range. The following model or regression equation was derived incorporating the significant variables which influence ballistic range:

$$R = 46783.4 + 97.6X_1 - 22.8X_2 + 60.8X_3 + 6.086 \left(\begin{matrix} \text{INITIAL} \\ \text{VELOCITY} \end{matrix} \right) - 9152.844 \left(\begin{matrix} \text{FORWARD} \\ \text{BOURRELET} \\ \text{DIAMETER} \end{matrix} \right) - 2380.307 \left(\begin{matrix} \text{INSIDE} \\ \text{TIR 3.75} \\ \text{FROM NOSE} \end{matrix} \right) - 289.044 \left(\begin{matrix} \text{PROJECTILE} \\ \text{LENGTH} \end{matrix} \right)$$

Where

$$\begin{matrix} R = \text{range (yds)} \\ \left. \begin{matrix} X_1 \\ X_2 \\ X_3 \end{matrix} \right\} \text{blocking for days} \end{matrix}$$

This equation has a multiple correlation coefficient of 0.890. The square of this number implies that this equation explains 79.2% of the variation in ballistic range.

The model may be interpreted as follows: (1) range is increased 6.086 yards for each ft/sec increase in initial velocity, (2) range is decreased 9.152 yards for each 0.001 increase in the forward bourrelet diameter, (3) range is decreased 2.38 yards for each 0.001 increase in the inside TIR at 3.75 from the nose, (4) range is decreased 2.89 yards for each 0.01 increase in the projectile length.

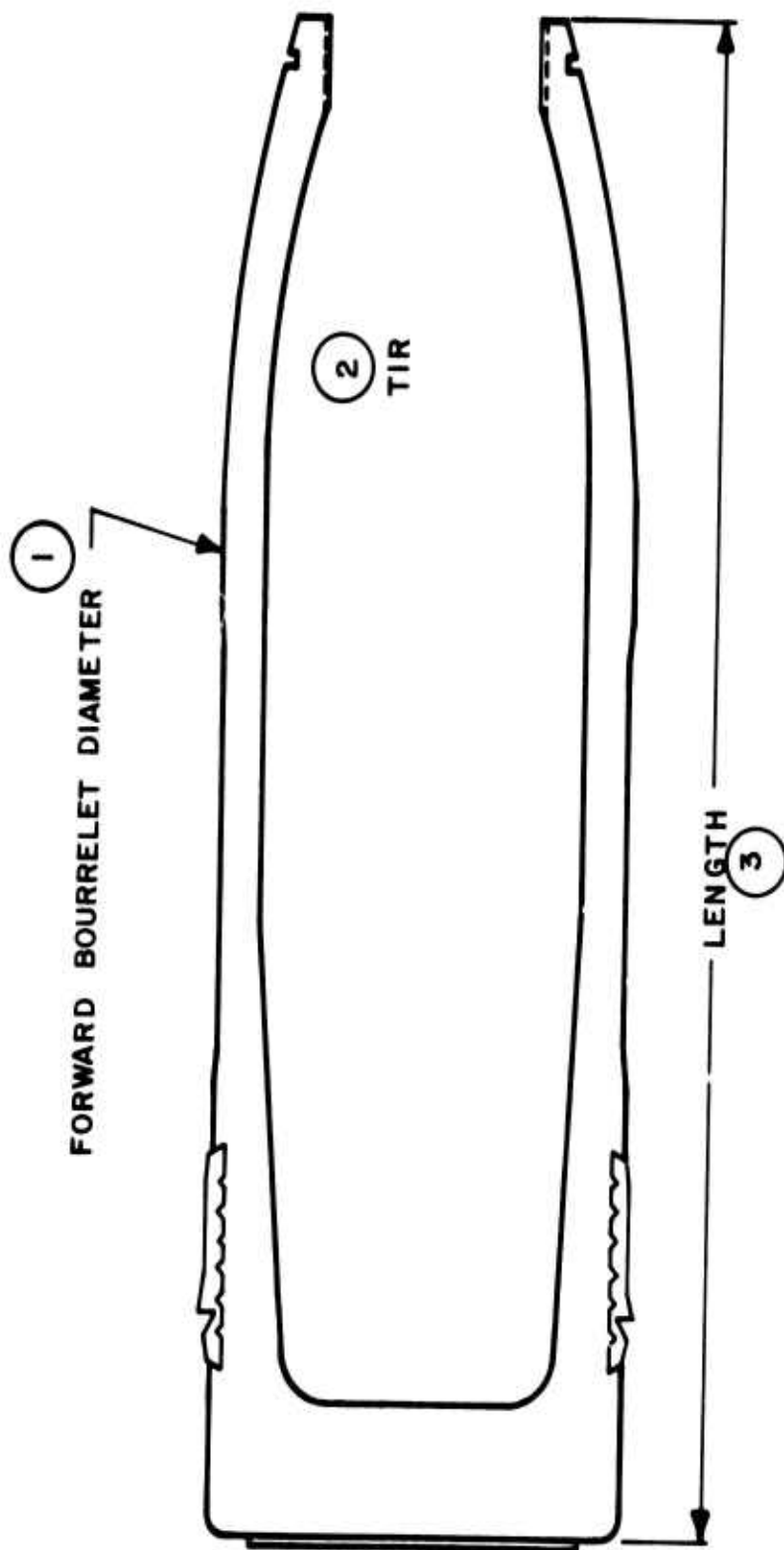


FIGURE 12

Location of Significant Projectile Measurements and
the Order of Importance

TABLE 3

5"/38 MARK 66 MOD 0 PROJECTILE BODY STATISTICS

MEASUREMENT LOCATION (in)	AVERAGE (in)	MAXIMUM (in)	MINIMUM (in)	STANDARD DEVIATION	RANGE (in)
INSIDE DIAMETER					
1.9*	2.960	3.113	2.701	.059	.412
2.9*	3.369	3.390	3.334	.010	.056
3.9*	3.486	3.523	3.462	.010	.061
4.9*	3.605	3.689	3.576	.012	.113
5.9*	3.723	3.847	3.694	.023	.153
6.9*	3.839	3.994	3.810	.022	.184
7.9*	3.924	3.994	3.905	.011	.089
8.9*	3.927	3.994	3.907	.011	.087
9.9*	3.931	3.994	3.908	.010	.086
5.75**	3.934	3.965	3.911	.009	.054
4.75**	3.896	3.923	3.856	.011	.067
3.75**	3.733	3.817	3.653	.035	.164
2.75**	3.470	3.549	3.386	.032	.163
1.75**	2.930	3.041	2.804	.049	.237
OUTSIDE DIAMETER					
1.9*	4.983	4.988	4.976	.002	.012
2.9*	5.124	5.128	5.119	.002	.009
3.9*	5.124	5.128	5.119	.002	.009
4.9*	4.984	4.989	4.978	.002	.011
5.9*	4.957	4.966	4.949	.004	.017
6.9*	4.957	4.966	4.945	.004	.021
7.9*	4.956	4.965	4.946	.004	.019
8.9*	4.956	4.967	4.945	.004	.022
9.9*	4.957	4.981	4.946	.005	.035
5.75**	4.983	4.987	4.980	.002	.007
4.75**	4.887	4.899	4.880	.003	.019
3.75**	4.701	4.712	4.692	.003	.020
2.75**	4.437	4.449	4.426	.004	.023
1.75**	4.094	4.105	4.082	.004	.023

* Distance from base

** Distance from nose

TABLE 3 (Continued)

5"/38 MARK 68 MOD 0 PROJECTILE BODY STATISTICS

MEASUREMENT LOCATION (in)	AVERAGE (in)	MAXIMUM (in)	MINIMUM (in)	STANDARD DEVIATION	RANGE (in)
INSIDE TOTAL INDICATED READING					
1.9*	.014	.053	.002	.009	.051
2.9*	.013	.046	.000	.008	.046
3.9*	.012	.033	.001	.007	.032
4.9*	.011	.030	.001	.006	.029
5.9*	.011	.029	.001	.006	.028
6.9*	.011	.026	.001	.005	.025
7.9*	.011	.026	.001	.005	.025
8.9*	.011	.025	.000	.005	.025
9.9*	.012	.032	.001	.006	.031
5.75**	.013	.043	.002	.007	.041
4.75**	.012	.038	.000	.007	.038
3.75**	.010	.035	.000	.006	.035
2.75**	.010	.035	.001	.006	.034
1.75**	.013	.036	.002	.007	.034

MISCELLANEOUS

Base					
Thickness	1.533	1.626	1.435	.037	.191
Length	16.645	16.726	16.493	.037	.233
Thread Angle	.002	.005	.000	.002	.005

* Distance from base

** Distance from nose

Tolerances (from Figure 1) of the three significant measurements are as follows:

Measurement	Tolerance (inches)	Effect on Ballistic Range
Forward Bourrelet diameter	4.985 $\begin{smallmatrix} + .000 \\ - .005 \end{smallmatrix}$	45.7 yds
Inside TIR 3".75 from NOSE	.000 - .050	119.0 yds
Projectile length	16.63 \pm .15	86.7 yds

The right column is the effect the measurements would have on ballistic range from the minimum to the maximum tolerance. These were determined by multiplying the coefficients in the above equation by the range of the measurement tolerance. It can be observed that inside TIR 3".75 from the NOSE and projectile length can have a sizeable effect on ballistic range for the current tolerances. The tolerances of these measurements should be decreased to about half of the current value because of their effect on ballistic performance.

C. Relationship Between Dynamic Imbalance and Projectile Dimensions

TIR measurements were taken at 17 locations inside the projectile cavity. These 17 measurements give a good representation of the eccentricity of the inside cavity relative to the bourrelets. These data are given in Appendix B at various distances from the projectile base (Z1 locations) and from the projectile nose (Z2 locations).

Multiple regression techniques were used to determine if dynamic imbalance could be predicted from projectile inside cavity TIR measurements. Sixty-five projectiles were used for this study from lots 62-74. Dynamic imbalance data for empty projectiles (Appendix A) were used. The right and left planes were investigated separately. The dynamic imbalance can be predicted fairly well by using the inside cavity TIR at three locations for the right plane and also for three different locations for the left plane. All 17 locations were evaluated in the regression work but only three locations were statistically significant for each plane. These three inside TIR measurements significantly influence the right plane (base bourrelet) dynamic imbalance: TIR 4.9 inches from base, TIR 8.9 inches from base, and TIR 2.9 inches from base. Note that these three locations are in the area of the rear bourrelet (see Figure 5).

The following three inside TIR measurements significantly influence the left plane (forward bourrelet) dynamic imbalance: TIR 9.9 inches from base, TIR 3.75 inches from NOSE, and TIR 2.75 inches from NOSE. Note that these three locations are in the area of the forward bourrelet (see Figure 5). The following equations were derived by regression analysis to predict dynamic imbalance from TIR measurements:

Right Plane (Base Bourrelet)

$$DI = 0.096 + 78.4845 \left(\frac{\text{INSIDE TIR}}{\text{AT 4.9 IN}} \right) + 135.7693 \left(\frac{\text{INSIDE TIR}}{\text{AT 8.9 IN}} \right) + 100.2835 \left(\frac{\text{INSIDE TIR}}{\text{AT 2.9 IN}} \right)$$

This equation explains 87% of the variations in dynamic imbalance.

Left Plane (Forward Bourrelet)

$$DI = -0.246 + 188.2139 \left(\frac{\text{INSIDE TIR}}{\text{AT 9.9 IN}} \right) + 110.5646 \left(\frac{\text{INSIDE TIR}}{\text{AT 3.75 IN}} \right) + 52.662 \left(\frac{\text{INSIDE TIR}}{\text{AT 2.75 IN}} \right)$$

This equation explains 84% of the variation in dynamic imbalance. These equations validate the fact that dynamic imbalance is caused mostly by the eccentricity of the inside cavity of the projectile.

V. CONCLUSIONS

- (1) A dynamic imbalance of ten inch-ounces or less does not significantly influence the ballistic range of a 5"/38 MARK 66 projectile.
- (2) Three projectile body dimensions had a significant effect upon the ballistic range of a 5"/38 MARK 66 projectile.
- (3) Dynamic imbalance is highly correlated with total indicated reading (eccentricity) of the inside projectile cavity.
- (4) None of the tests studied seems to be a substitute for ballistic testing of projectiles as an acceptance test.

APPENDIX A

Dynamic Imbalance Data

DATE TESTED	LOT NO	PROJ NO	RANGE (YDS)	DIFT (WIS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC DENSITY (G/CC)	RANGE WIND (KTS)	CROSS WIND (KTS)	INERT LOADED				EMPTY			
									RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)
									RIGHT PLANE GRAVITY (IN)	LEFT PLANE GRAVITY (IN)	RIGHT PLANE GRAVITY (IN)	LEFT PLANE GRAVITY (IN)	RIGHT PLANE GRAVITY (IN)	LEFT PLANE GRAVITY (IN)	RIGHT PLANE GRAVITY (IN)	LEFT PLANE GRAVITY (IN)
7-16-71	33	31	11947	141	2531	99.34	6.29	2.51	4.4	194	2.2	2.0	7.69	6.4	190	6.2
7-16-71	33	32	12154	164	2576	99.34	6.25	2.51	4.6	100	3.4	50	7.05	1.4	100	1.2
7-16-71	33	33	11342	142	2541	99.34	6.25	2.51	2.6	77	3.4	240	7.05	4.2	50	2.8
7-16-71	33	34	11947	186	2524	99.34	6.25	2.51	3.5	243	9.4	270	7.67	4.2	290	3.7
7-16-71	33	35	11873	143	2510	99.34	6.29	2.51	4.4	70	9.4	40	7.66	2.0	110	4.0
7-16-71	34	31	12042	143	2542	99.34	6.25	2.51	4.4	330	5.2	340	7.64	5.6	370	3.6
7-16-71	34	32	11937	177	2529	99.34	6.25	2.51	3.6	340	7.2	350	7.47	4.6	340	4.4
7-16-71	34	33	11951	171	2526	99.34	6.25	2.51	2.0	360	7.0	60	7.66	1.8	170	4.4
7-16-71	34	34	11915	161	2524	99.34	6.25	2.51	2.4	220	7.0	360	7.65	1.8	230	4.4
7-16-71	34	35	11915	161	2533	99.34	6.25	2.51	2.4	180	9.2	220	7.65	2.0	170	5.0
7-16-71	35	31	11915	135	2529	99.34	6.25	2.51	3.2	294	2.4	180	7.66	1.8	260	5.0
7-16-71	35	32	12035	135	2527	99.34	6.25	2.51	3.2	73	7.4	110	7.66	4.0	90	1.4
7-16-71	35	33	12032	131	2544	99.34	6.25	2.51	1.8	143	7.4	120	7.64	2.0	370	1.4
7-16-71	35	34	12032	129	2537	99.34	6.25	2.51	1.6	90	6.4	150	7.65	5.4	70	2.0
7-16-71	35	35	12106	143	2532	99.34	6.25	2.51	4.6	120	1.0	150	7.65	5.4	110	4.6
7-16-71	36	31	12148	142	2544	99.34	6.25	2.51	3.4	60	1.6	150	7.65	5.4	110	4.6
7-16-71	36	32	12124	147	2528	99.34	6.25	2.51	5.2	240	5.0	290	7.66	4.8	30	7.8
7-16-71	36	33	12021	131	2534	99.34	6.25	2.51	3.0	170	3.8	150	7.65	2.0	40	6.0
7-16-71	36	34	12124	134	2526	99.34	6.25	2.51	1.6	160	9.4	110	7.65	1.4	80	4.6
7-16-71	36	35	12038	129	2527	99.34	6.25	2.51	1.2	140	9.4	140	7.67	1.2	120	6.0
7-16-71	37	31	12016	136	2531	99.34	6.25	2.51	4.0	370	6.6	330	7.67	4.4	370	6.0
7-16-71	37	32	12057	137	2531	99.34	6.25	2.51	2.2	100	1.0	240	7.65	4.6	70	2.8
7-16-71	37	33	11931	141	2523	99.34	6.25	2.51	4.0	240	8.4	320	7.62	4.0	240	5.0
7-16-71	37	34	12057	130	2528	99.34	6.25	2.51	2.6	210	2.6	270	7.63	4.0	210	3.0
7-16-71	38	31	12034	124	2534	99.34	6.25	2.51	4.0	320	1.8	270	7.64	2.0	140	3.8
7-16-71	38	32	12134	122	2531	99.34	6.25	2.51	5.5	20	7.2	140	7.66	7.6	270	3.8
7-16-71	38	33	12134	116	2535	99.34	6.25	2.51	4.4	110	3.2	120	7.67	7.6	140	3.8
7-16-71	38	34	12134	116	2529	99.34	6.25	2.51	4.4	170	4.0	170	7.67	5.0	140	3.8
7-16-71	38	35	12172	131	2527	99.34	6.25	2.51	2.8	290	9.4	230	7.67	4.4	240	3.8
7-16-71	39	31	12010	121	2536	99.34	6.25	2.51	1.4	280	5.4	330	7.63	1.0	310	1.4
7-16-71	39	32	12123	131	2526	99.34	6.25	2.51	1.4	80	7.6	20	7.61	2.2	100	1.4
7-16-71	39	33	12123	121	2527	99.34	6.25	2.51	2.4	130	9.0	120	7.61	3.2	100	4.4
7-16-71	39	34	12072	121	2527	99.34	6.25	2.51	1.4	170	5.0	210	7.66	2.2	140	4.4
7-16-71	39	35	11919	117	2527	99.34	6.25	2.51	2.0	160	5.4	210	7.67	2.2	140	4.4
7-16-71	40	31	11942	113	2524	99.34	6.25	2.51	2.6	170	4.0	230	7.67	3.4	150	7.2
7-16-71	40	32	11946	134	2529	99.34	6.25	2.51	4.4	70	9.4	230	7.67	1.2	170	4.0
7-16-71	40	33	12035	131	2529	99.34	6.25	2.51	4.4	170	7.6	250	7.66	2.0	200	3.0
7-16-71	40	34	12136	115	2527	99.34	6.25	2.51	1.0	350	6.2	40	7.67	4.3	140	1.4
7-16-71	40	35	12011	125	2523	99.34	6.25	2.51	2.2	11	6.0	1	7.64	3.7	20	3.7
7-16-71	41	31	12034	124	2532	99.34	6.25	2.51	4.0	160	4.2	203	7.65	2.0	140	2.4
7-16-71	41	32	12039	119	2532	99.34	6.25	2.51	1.8	130	9.2	243	7.64	2.8	40	7.6
7-16-71	41	33	12050	120	2527	99.34	6.25	2.51	1.0	60	3.0	50	7.64	2.0	40	3.0
7-16-71	41	34	11955	126	2514	99.34	6.25	2.51	4.4	190	5.4	190	7.65	5.4	190	4.0
7-16-71	41	35	12143	130	2522	99.34	6.25	2.51	1.6	60	5.8	90	7.66	2.4	120	3.0
7-16-71	42	31	12052	132	2529	99.34	6.25	2.51	2.0	19	7.4	70	7.67	2.0	21	4.4
7-16-71	42	32	12052	132	2529	99.34	6.25	2.51	4.4	40	5.6	40	7.64	4.6	2.2	2.2

DATE TESTED	LOT NO	POOL NO	RANGE (YDS)	DRIFT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC DENSITY (PERCENT)	RANGE (YDS)	WIND (KTS)	CROSS WIND (KTS)	INERT LOADED				EMPTY			
										RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	CENTER OF GRAVITY (IN)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	CENTER OF GRAVITY (IN)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)
7-16-73	42	92	12.02	125	2314	99.34	6.25	2.51		2.6	3.4	210	7.64	4.3	120	1.6	320
7-16-73	42	93	12.09	141	2327	99.34	6.25	2.51		5.4	7.0	150	7.64	6.0	110	6.4	120
7-16-73	42	94	11.93	154	2317	99.34	6.25	2.51		1.6	3.1	60	7.67	4.4	350	2.6	360
7-16-73	42	95	11.93	127	2325	99.34	6.25	2.51		5.2	6.8	250	7.64	4.6	300	7.2	300
7-16-73	43	81	12.19	-66	2379	97.63	-1.25	-20.27		4.6	6.2	170	7.64	1.9	340	5.9	190
7-16-73	43	82	12.47	-57	2373	97.63	-1.25	-20.27		1.4	3.0	100	7.64	3.0	70	4.0	250
7-16-73	43	83	12.49	-64	2374	97.63	-1.25	-20.27		6.2	7.8	240	7.66	1.6	160	2.2	190
7-16-73	43	84	12.12	-65	2374	97.63	-1.25	-20.27		5.0	6.6	240	7.66	1.6	160	2.2	190
7-16-73	43	85	12.27	-62	2374	97.63	-1.25	-20.27		5.0	6.6	240	7.66	1.6	160	2.2	190
7-16-73	44	92	11.91	-11	2327	97.63	-1.25	-20.27		5.0	6.6	240	7.66	1.6	160	2.2	190
7-16-73	44	93	11.94	-11	2327	97.63	-1.25	-20.27		5.0	6.6	240	7.66	1.6	160	2.2	190
7-16-73	44	94	11.94	-64	2327	97.63	-1.25	-20.27		5.0	6.6	240	7.66	1.6	160	2.2	190
7-16-73	44	95	11.94	-64	2327	97.63	-1.25	-20.27		5.0	6.6	240	7.66	1.6	160	2.2	190
7-16-73	45	91	11.94	-30	2327	97.63	-1.25	-20.27		5.0	6.6	240	7.66	1.6	160	2.2	190
7-16-73	45	92	11.94	-30	2327	97.63	-1.25	-20.27		5.0	6.6	240	7.66	1.6	160	2.2	190
7-16-73	45	93	11.94	-30	2327	97.63	-1.25	-20.27		5.0	6.6	240	7.66	1.6	160	2.2	190
7-16-73	45	94	11.94	-30	2327	97.63	-1.25	-20.27		5.0	6.6	240	7.66	1.6	160	2.2	190
7-16-73	45	95	11.94	-30	2327	97.63	-1.25	-20.27		5.0	6.6	240	7.66	1.6	160	2.2	190
7-16-73	46	91	11.94	-30	2327	97.63	-1.25	-20.27		5.0	6.6	240	7.66	1.6	160	2.2	190
7-16-73	46	92	11.94	-30	2327	97.63	-1.25	-20.27		5.0	6.6	240	7.66	1.6	160	2.2	190
7-16-73	46	93	11.94	-30	2327	97.63	-1.25	-20.27		5.0	6.6	240	7.66	1.6	160	2.2	190
7-16-73	46	94	11.94	-30	2327	97.63	-1.25	-20.27		5.0	6.6	240	7.66	1.6	160	2.2	190
7-16-73	46	95	11.94	-30	2327	97.63	-1.25	-20.27		5.0	6.6	240	7.66	1.6	160	2.2	190
7-16-73	47	81	11.97	-36	2324	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	47	82	11.91	-38	2324	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	47	83	11.94	-38	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	47	84	11.94	-38	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	47	85	11.94	-38	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	47	86	11.94	-38	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	47	87	11.94	-38	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	47	88	11.94	-38	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	47	89	11.94	-38	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	47	90	11.94	-38	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	48	92	11.96	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	48	93	11.96	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	48	94	11.96	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	48	95	11.96	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	48	96	11.96	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	48	97	11.96	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	48	98	11.96	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	48	99	11.96	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	48	100	11.96	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	49	91	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	49	92	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	49	93	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	49	94	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	49	95	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	49	96	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	49	97	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	49	98	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	49	99	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	49	100	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	50	91	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	50	92	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	50	93	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	50	94	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	50	95	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	50	96	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	50	97	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	50	98	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	50	99	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190
7-16-73	50	100	11.94	-31	2322	97.63	-1.25	-20.27		5.4	7.0	250	7.66	1.6	160	2.2	190

DATE TESTED	LOT NO	PROJ NO	RANGE (YDS)	SHIFT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC DENSITY (PERCENT)	RANGE MIND (KTS)	CROSS WIND (KTS)	INFLUENCE				EMPTY			
									RIGHT PLANE	LEFT PLANE	CENTERED	RIGHT PLANE	LEFT PLANE	DYNAMIC	CENTER	CF
									DYNAMIC BALANCE (IN-OZ) (DEG)	DYNAMIC BALANCE (IN-OZ) (DEG)	GRAVITY (IN)	DYNAMIC BALANCE (IN-OZ) (DEG)	DYNAMIC BALANCE (IN-OZ) (DEG)	DYNAMIC BALANCE (IN-OZ) (DEG)	GRAVITY (IN)	GRAVITY (IN)
9-17-70	51	93	12057	127	2528	97.70	1.93	-10.31	5	120	2.4	2.4	180	1.4	6.52	6.52
9-17-70	51	94	12057	126	2531	97.70	1.93	-10.31	5.2	120	7.4	7.4	180	5.4	6.51	6.51
9-17-70	51	95	12057	127	2530	97.70	1.93	-10.31	4.0	120	6.0	6.0	180	3.4	6.49	6.49
9-17-70	52	91	12057	129	2519	97.70	1.93	-10.31	2.0	120	2.0	2.0	180	2.0	6.53	6.53
9-17-70	52	92	12054	122	2527	97.70	1.93	-10.31	3.4	120	3.4	3.4	180	1.8	6.50	6.50
9-17-70	52	93	12051	133	2527	97.70	1.93	-10.31	3.2	120	3.2	3.2	180	4.0	6.52	6.52
9-17-70	52	94	11959	118	2527	97.70	1.93	-10.31	6.6	120	6.6	6.6	180	6.8	6.54	6.54
9-17-70	52	95	11947	110	2518	97.70	1.93	-10.31	9.0	120	9.0	9.0	180	4.4	6.54	6.54
9-17-70	53	91	12058	111	2526	97.70	1.93	-10.31	3.3	120	3.3	3.3	180	3.2	6.53	6.53
9-17-70	53	92	12042	119	2525	97.70	1.93	-10.31	3.4	120	3.4	3.4	180	3.4	6.53	6.53
9-17-70	53	93	12049	124	2530	97.70	1.93	-10.31	2.9	120	2.9	2.9	180	3.4	6.56	6.56
9-17-70	53	94	12079	115	2534	97.70	1.93	-10.31	1.2	120	1.2	1.2	180	2.6	6.54	6.54
9-17-70	54	91	12072	110	2531	97.70	1.93	-10.31	6.4	120	6.4	6.4	180	5.6	6.59	6.59
9-17-70	54	92	12017	113	2530	97.70	1.93	-10.31	7.4	120	7.4	7.4	180	4.6	6.56	6.56
9-17-70	54	93	12040	117	2529	97.70	1.93	-10.31	2.0	120	2.0	2.0	180	2.2	6.58	6.58
9-17-70	54	94	12033	114	2529	97.70	1.93	-10.31	4.4	120	4.4	4.4	180	4.0	6.57	6.57
9-17-70	54	95	12062	112	2527	97.70	1.93	-10.31	3.4	120	3.4	3.4	180	2.8	6.53	6.53
9-17-70	55	91	12014	116	2527	97.70	1.93	-10.31	3.0	120	3.0	3.0	180	3.4	6.52	6.52
9-17-70	55	92	11939	110	2525	97.70	1.93	-10.31	1.6	120	1.6	1.6	180	2.6	6.56	6.56
9-17-70	55	93	11934	114	2527	97.70	1.93	-10.31	3.6	120	3.6	3.6	180	2.6	6.56	6.56
9-17-70	55	94	12050	116	2530	97.70	1.93	-10.31	3.6	120	3.6	3.6	180	4.6	6.59	6.59
9-17-70	56	91	11932	111	2527	97.70	1.93	-10.31	2.6	120	2.6	2.6	180	4.0	6.52	6.52
9-17-70	56	92	11952	112	2520	97.70	1.93	-10.31	4.4	120	4.4	4.4	180	5.6	6.59	6.59
9-17-70	56	93	11935	113	2524	97.70	1.93	-10.31	5.6	120	5.6	5.6	180	5.4	6.56	6.56
9-17-70	56	94	11982	116	2527	97.70	1.93	-10.31	5.6	120	5.6	5.6	180	5.4	6.52	6.52
9-17-70	56	95	11952	114	2532	97.70	1.93	-10.31	3.6	120	3.6	3.6	180	4.8	6.58	6.58
9-17-70	57	91	11912	116	2513	97.70	1.93	-10.31	2.2	120	2.2	2.2	180	1.2	6.62	6.62
9-17-70	57	92	11917	111	2527	97.70	1.93	-10.31	7.4	120	7.4	7.4	180	3.4	6.62	6.62
9-17-70	57	93	11939	117	2528	97.70	1.93	-10.31	1.4	120	1.4	1.4	180	6.2	6.62	6.62
9-17-70	57	94	11910	112	2528	97.70	1.93	-10.31	1.6	120	1.6	1.6	180	7.8	6.56	6.56
9-17-70	57	95	11916	114	2528	97.70	1.93	-10.31	3.6	120	3.6	3.6	180	7.0	6.54	6.54
9-17-70	58	91	11959	115	2522	97.70	1.93	-10.31	1.6	120	1.6	1.6	180	2.4	6.54	6.54
9-17-70	58	92	11948	112	2514	97.70	1.93	-10.31	1.8	120	1.8	1.8	180	2.4	6.52	6.52
9-17-70	58	93	11954	111	2511	97.70	1.93	-10.31	1.6	120	1.6	1.6	180	2.4	6.50	6.50
9-17-70	58	94	12045	113	2525	97.70	1.93	-10.31	7.2	120	7.2	7.2	180	2.6	6.56	6.56
9-17-70	59	91	11941	114	2518	97.70	1.93	-10.31	6.6	120	6.6	6.6	180	4.4	6.54	6.54
9-17-70	59	92	11947	114	2514	97.70	1.93	-10.31	5.4	120	5.4	5.4	180	4.6	6.54	6.54
9-17-70	59	93	12076	116	2526	97.70	1.93	-10.31	6.8	120	6.8	6.8	180	6.6	6.54	6.54
9-17-70	59	94	12016	113	2521	97.70	1.93	-10.31	2.4	120	2.4	2.4	180	7.4	6.50	6.50
9-17-70	59	95	11979	117	2521	97.70	1.93	-10.31	1.0	120	1.0	1.0	180	2.6	6.52	6.52
9-17-70	60	91	11942	111	2517	97.70	1.93	-10.31	2.4	120	2.4	2.4	180	3.0	6.50	6.50
9-17-70	60	92	12033	117	2529	97.70	1.93	-10.31	4.2	120	4.2	4.2	180	5.0	6.54	6.54
9-17-70	60	93	11938	115	2524	97.70	1.93	-10.31	4.4	120	4.4	4.4	180	1.4	6.56	6.56

DATE TESTED	LOT NO	PROJ NO	RANGE (YDS)	DRIFT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC COEFFICIENT (PERCENT)	RANGE WIND (KTS)	CROSS WIND (KTS)	IN-01 LOCALITY				IN-02 FORTY				
									RIG-01 PLANE DYNAMIC BALANCE (IN-01) (DEG)	LEFT PLANE DYNAMIC BALANCE (IN-01) (DEG)	CENTER OF GRAVITY (IN) (IN-01) (DEG)	RIGHT PLANE DYNAMIC BALANCE (IN-02) (DEG)	LEFT PLANE DYNAMIC BALANCE (IN-02) (DEG)	CENTER OF GRAVITY (IN) (IN-02) (DEG)			
8-17-73	60	84	120.14	117	2529	97.73	1.83	-10.11	0	3.4	3.4	90	7.65	7.65	250	120	6.62
8-17-70	60	85	120.47	112	2529	97.70	1.80	-10.11	3.2	127	3.4	240	7.71	7.71	143	210	6.60
8-17-70	61	81	120.43	115	2516	97.70	1.83	-10.11	3.2	110	3.8	150	7.72	7.72	137	200	6.62
8-17-70	61	82	120.01	114	2632	97.70	1.83	-10.11	4.6	140	6.8	150	7.73	7.73	170	190	6.60
8-17-70	61	83	119.73	97	2521	97.73	1.83	-10.11	3.7	130	4.0	340	7.65	7.65	140	4.2	6.56
8-17-70	61	84	119.77	116	2517	97.73	1.83	-10.11	3.4	100	4.4	160	7.64	7.64	190	4.2	6.56
8-17-70	61	85	120.14	129	2524	97.73	1.83	-10.11	5.0	360	5.0	350	7.69	7.69	33	5.4	6.62
8-17-70	62	91	118.4	40	2518	100.85	-5.12	-12.57	5.0	90	2.5	70	7.69	7.69	120	4.8	6.55
8-17-70	62	92	117.18	4	2514	100.85	-5.12	-12.57	5.4	180	7.2	130	7.69	7.69	290	6.57	6.59
8-17-70	62	93	117.12	45	2514	100.85	-5.12	-12.57	7.2	130	6.2	60	7.72	7.72	43	5.6	6.59
8-17-70	62	94	118.49	49	2527	100.85	-5.12	-12.57	6.0	260	7.3	7.3	7.64	7.64	290	6.54	6.55
8-17-70	63	91	118.34	40	2525	100.85	-5.12	-12.57	2.2	360	7.3	10	7.60	7.60	7.9	7.9	6.55
8-17-70	63	92	118.59	38	2526	100.85	-5.12	-12.57	4.4	720	8.0	204	7.64	7.64	240	6.54	6.54
8-17-70	63	93	117.81	4	2522	100.85	-5.12	-12.57	2.8	150	4.6	230	7.64	7.64	180	6.59	6.59
8-17-70	63	94	117.77	34	2523	100.85	-5.12	-12.57	1.6	340	2.5	30	7.65	7.65	150	6.70	6.70
8-17-70	63	95	118.13	41	2514	100.85	-5.12	-12.57	2.4	240	1.8	340	7.67	7.67	150	6.62	6.62
8-17-70	64	91	117.53	32	2515	100.85	-5.12	-12.57	1.8	130	5.2	190	7.72	7.72	2.6	2.6	6.62
8-17-70	64	92	117.14	30	2516	100.85	-5.12	-12.57	2.0	210	7.4	290	7.64	7.64	210	6.56	6.56
8-17-70	64	93	116.73	37	2511	100.85	-5.12	-12.57	1.6	170	1.2	290	7.70	7.70	140	6.53	6.53
8-17-70	64	94	116.24	36	2406	100.85	-5.12	-12.57	4.2	160	6.6	210	7.64	7.64	170	6.54	6.54
8-17-70	65	91	117.23	40	2513	100.85	-5.12	-12.57	2.0	160	7.4	180	7.66	7.66	190	6.54	6.54
8-17-70	65	92	118.11	24	2517	100.85	-5.12	-12.57	3.0	100	5.3	120	7.66	7.66	150	6.54	6.54
8-17-70	65	93	118.44	35	2529	100.85	-5.12	-12.57	3.2	160	2.9	170	7.65	7.65	190	6.54	6.54
8-17-70	65	94	118.16	26	2430	100.85	-5.12	-12.57	3.6	190	2.2	330	7.66	7.66	220	6.54	6.54
8-17-70	65	95	117.53	30	2525	100.85	-5.12	-12.57	5.0	340	7.2	10	7.67	7.67	150	6.53	6.53
8-17-70	66	91	117.0	19	2515	100.85	-5.12	-12.57	4.6	220	3.0	260	7.69	7.69	170	6.52	6.52
8-17-70	66	92	117.65	23	2513	100.85	-5.12	-12.57	2.4	320	5.3	50	7.64	7.64	170	6.54	6.54
8-17-70	66	93	117.53	17	2513	100.85	-5.12	-12.57	3.0	360	4.6	40	7.62	7.62	170	6.54	6.54
8-17-70	66	94	116.9	22	2496	100.85	-5.12	-12.57	3.4	130	5.8	60	7.66	7.66	170	6.53	6.53
8-17-70	66	95	117.5	12	2510	100.85	-5.12	-12.57	4.2	130	5.8	10	7.66	7.66	170	6.53	6.53
8-17-70	67	81	117.19	26	2401	100.85	-5.12	-12.57	3.2	200	4.0	170	7.69	7.69	200	6.62	6.62
8-17-70	67	82	117.13	27	2507	100.85	-5.12	-12.57	2.9	260	5.6	260	7.65	7.65	200	6.59	6.59
8-17-70	67	83	118.2	23	2503	100.85	-5.12	-12.57	4.6	170	5.3	190	7.66	7.66	230	6.60	6.60
8-17-70	67	84	116.57	33	2509	100.85	-5.12	-12.57	2.6	130	5.3	160	7.69	7.69	120	6.53	6.53
8-17-70	67	85	117.19	22	2517	100.85	-5.12	-12.57	3.2	170	4.4	170	7.64	7.64	120	6.53	6.53
8-17-70	68	91	118.12	31	2516	100.85	-5.12	-12.57	1.4	130	3.8	170	7.64	7.64	120	6.53	6.53
8-17-70	68	92	117.14	24	2511	100.85	-5.12	-12.57	1.4	130	3.8	170	7.64	7.64	120	6.53	6.53
8-17-70	68	93	117.3	25	2518	100.85	-5.12	-12.57	1.4	130	3.8	170	7.64	7.64	120	6.53	6.53
8-17-70	68	94	117.7	26	2514	100.85	-5.12	-12.57	1.4	130	3.8	170	7.64	7.64	120	6.53	6.53
8-17-70	68	95	117.1	3	2514	100.85	-5.12	-12.57	1.4	130	3.8	170	7.64	7.64	120	6.53	6.53
8-17-70	69	91	116.39	23	2509	100.85	-5.12	-12.57	2.6	130	5.4	170	7.64	7.64	120	6.53	6.53
8-17-70	69	92	117.54	25	2519	100.85	-5.12	-12.57	5.2	100	3.4	240	7.64	7.64	120	6.53	6.53
8-17-70	69	93	118.2	29	2514	100.85	-5.12	-12.57	4.0	130	3.4	240	7.64	7.64	120	6.53	6.53
8-17-70	69	94	116.30	33	2492	100.85	-5.12	-12.57	2.6	130	5.2	130	7.64	7.64	120	6.53	6.53

DATE TESTED	LOT NO.	PAIJ RANGE (YDS)	CRIST VELOCITY (FT/SEC)	INITIAL VELOCITY (FT/SEC)	BALLISTIC DENSITY (PERCENT)	RANGE FMS	CROSS WIND (KTS)	INERT LOADED				EMPTY			
								RIGHT PLANE DYNAMIC BALANCE (IN-OZ) (OFG)	LEFT PLANE DYNAMIC BALANCE (IN-OZ) (OFG)	CENTER OF GRAVITY (IN)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ) (OFG)	LEFT PLANE DYNAMIC BALANCE (IN-OZ) (OFG)	CENTER OF GRAVITY (IN)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ) (OFG)	CENTER OF GRAVITY (IN)
3-3-70	69	95 11777	24	2517	105.35	-5.12	-12.57	6.0	100	120	7.6	110	7.6	110	6.56
1-26-70	70	91 11757	249	2532	102.29	1.75	21.60	3.4	60	40	5.4	30	5.4	30	6.59
1-26-70	71	92 11737	254	2531	102.29	1.75	21.60	4.2	140	10	5.6	100	5.6	100	6.55
1-26-70	72	93 11746	259	2530	102.29	1.75	21.60	1.5	100	10	3.0	100	3.0	100	6.58
1-26-70	73	94 11740	247	2541	102.29	1.75	21.60	1.0	190	10	7.2	230	7.2	230	6.59
1-26-70	74	95 11713	242	2529	102.29	1.75	21.60	3.2	360	100	7.6	320	7.6	320	6.59
1-26-70	75	91 11734	250	2540	102.29	1.75	21.60	2.0	240	240	7.73	330	7.73	330	6.55
1-26-70	76	92 11549	246	2519	102.29	1.75	21.60	3.2	250	250	7.71	210	7.71	210	6.55
1-26-70	77	93 11724	250	2543	102.29	1.75	21.60	3.4	340	270	7.69	290	7.69	290	6.59
1-26-70	78	94 11693	237	2572	102.29	1.75	21.60	4	100	130	7.72	20	7.72	20	6.62
1-26-70	79	95 11674	240	2535	102.29	1.75	21.60	2.4	60	90	7.72	350	7.72	350	6.61
1-26-70	80	91 11734	245	2536	102.29	1.75	21.60	3.6	150	290	7.67	100	7.67	100	6.60
1-26-70	81	92 11812	243	2531	102.29	1.75	21.60	3.4	50	130	7.70	40	7.70	40	6.63
1-26-70	82	93 11739	242	2528	102.29	1.75	21.60	1.8	40	110	7.72	150	7.72	150	6.63
1-26-70	83	94 11726	249	2532	102.29	1.75	21.60	3.5	110	320	7.76	330	7.76	330	6.64
1-26-70	84	95 11695	244	2537	102.29	1.75	21.60	2.6	250	260	7.70	240	7.70	240	6.60
1-26-70	85	91 11658	237	2523	102.29	1.75	21.60	1.4	50	140	7.73	30	7.73	30	6.60
1-26-70	86	92 11610	242	2521	102.29	1.75	21.60	1.4	140	290	7.70	240	7.70	240	6.60
1-26-70	87	93 11697	237	2537	102.29	1.75	21.60	2.6	120	320	7.72	20	7.72	20	6.64
1-26-70	88	94 11674	242	2532	102.29	1.75	21.60	3.0	120	320	7.72	20	7.72	20	6.64
1-26-70	89	95 11742	242	2537	102.29	1.75	21.60	3.0	120	320	7.72	20	7.72	20	6.64
1-26-70	90	91 11812	239	2537	102.29	1.75	21.60	3.0	120	320	7.72	20	7.72	20	6.64
1-26-70	91	92 11657	247	2525	102.29	1.75	21.60	3.6	160	210	7.75	90	7.75	90	6.65
1-26-70	92	93 11716	234	2532	102.29	1.75	21.60	3.4	350	190	7.74	150	7.74	150	6.65
1-26-70	93	94 11694	235	2530	102.29	1.75	21.60	3.6	360	160	7.74	350	7.74	350	6.60
1-26-70	94	95 11704	242	2530	102.29	1.75	21.60	3.0	40	330	7.73	30	7.73	30	6.60
1-26-70	95	91 11772	24	2524	102.29	1.75	21.60	5.0	330	120	7.69	300	7.69	300	6.57
1-26-70	96	92 11741	124	2524	105.53	15.65	3.32	2.2	280	270	7.74	90	7.74	90	6.54
1-26-70	97	93 11675	127	2517	105.53	15.65	3.32	5.0	160	360	7.76	20	7.76	20	6.54
1-26-70	98	94 11751	139	2525	105.53	15.65	3.32	2.8	80	360	7.72	290	7.72	290	6.54
1-26-70	99	95 11775	123	2511	105.53	15.65	3.32	7.5	360	360	7.74	200	7.74	200	6.57
1-26-70	100	91 11739	129	2515	105.53	15.65	3.32	4.8	210	220	7.75	150	7.75	150	6.57
1-26-70	101	92 11818	120	2532	105.53	15.65	3.32	3.6	160	260	7.74	120	7.74	120	6.56
1-26-70	102	93 11811	161	2524	105.53	15.65	3.32	3.6	110	350	7.76	170	7.76	170	6.54
1-26-70	103	94 11839	144	2534	105.53	15.65	3.32	1.6	160	50	7.70	170	7.70	170	6.54
1-26-70	104	95 11874	144	2523	105.53	15.65	3.32	3.4	100	310	7.74	140	7.74	140	6.52
1-26-70	105	91 11856	161	2511	105.53	15.65	3.32	3.4	80	310	7.76	140	7.76	140	6.52
1-26-70	106	92 11731	130	2519	105.53	15.65	3.32	1.2	40	330	7.76	140	7.76	140	6.53
1-26-70	107	93 12014	57	2537	105.53	15.65	3.32	2.2	320	260	7.74	90	7.74	90	6.52
1-26-70	108	94 11809	90	2528	105.53	15.65	3.32	1.4	90	50	7.74	280	7.74	280	6.56
1-26-70	109	95 11739	137	2518	105.53	15.65	3.32	4.4	110	190	7.74	130	7.74	130	6.54
1-26-70	110	91 11830	200	2522	105.53	15.65	3.32	3.2	240	330	7.77	170	7.77	170	6.54
1-26-70	111	92 11820	134	2526	105.53	15.65	3.32	5.6	40	280	7.76	160	7.76	160	6.54
1-26-70	112	93 11735	170	2526	105.53	15.65	3.32	1.0	200	280	7.74	160	7.74	160	6.54
1-26-70	113	94 11874	89	2531	105.53	15.65	3.32	2.4	200	360	7.75	160	7.75	160	6.50
1-26-70	114	95 11632	131	2522	105.53	15.65	3.32	2.4	200	360	7.75	160	7.75	160	6.50

DATE TESTED	LOT NO	PROJ NO	RANGE (YDS)	DRIFT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC DEFICIENCY (PERCENT)	RANGE MIND (KTS)	CROSS WIND (KTS)	INERT LOADED				EMPTY				
									RIGHT PLANE DYNAMIC BALANCE (IN-OZ) (DEG)	LEFT PLANE DYNAMIC BALANCE (IN-OZ) (DEG)	CENTER OF GRAVITY (IN)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ) (DEG)	LEFT PLANE DYNAMIC BALANCE (IN-OZ) (DEG)	CENTER OF GRAVITY (IN)			
11-16-70	79	91	11445	111	2524	105.53	16.65	3.32	.8	70	290	7.74	1.1	220	1.8	250	6.55
11-16-70	79	92	11778	120	2524	105.53	16.65	3.32	.4	343	250	7.74	2.2	120	6.0	90	6.57
11-16-70	79	93	11690	147	2522	105.53	16.65	3.32	2.0	143	40	7.74	4.0	320	3.9	340	6.56
11-16-70	79	94	11760	142	2518	105.53	16.65	3.32	2.4	31	730	7.72	2.2	190	2.0	140	6.60
11-16-70	79	95	11794	146	2516	105.53	16.65	3.32	1.4	314	280	7.78	1.2	70	1.8	139	6.54
11-16-70	79	96	11810	117	2523	105.53	16.65	3.32	1.9	363	340	7.75	3.6	150	.8	170	6.52
11-16-70	79	97	11777	16	2525	105.53	16.65	3.32	2.0	20	30	7.76	2.0	170	1.8	140	6.56
11-16-70	79	98	11745	114	2527	105.53	16.65	3.32	2.8	250	260	7.77	3.4	40	9.2	10	6.54
11-16-70	79	99	11748	133	2531	105.53	16.65	3.32	2.8	110	120	7.76	3.6	260	5.2	240	6.54
11-16-70	81	91	11874	239	2524	105.53	16.65	3.32	3.9	320	240	7.74	4.9	40	4.0	40	6.52
11-16-70	79	92	11914	64	2524	105.53	16.65	3.32	.8	70	290	7.72	1.4	190	3.0	20	6.52
11-16-70	79	93	11631	165	2528	105.53	16.65	3.32	3.0	20	50	7.75	3.4	130	7.8	200	6.56
11-16-70	79	94	11777	171	2528	105.53	16.65	3.32	2.0	60	90	7.74	1.6	170	2.2	200	6.54
11-16-70	79	95	11859	105	2539	105.53	16.65	3.32	3.0	234	250	7.74	4.0	10	4.4	20	6.54
11-16-70	79	96	11752	127	2528	105.53	16.65	3.32	4.0	40	20	7.76	5.0	190	6.0	180	6.50
11-16-70	79	97	11739	163	2530	105.53	16.65	3.32	2.7	280	160	7.72	3.0	80	5.6	90	6.53
11-16-70	82	93	11768	137	2529	105.53	16.65	3.32	3.0	220	250	7.72	3.0	350	1.2	310	6.51
11-16-70	79	98	11757	153	2521	105.53	16.65	3.32	2.4	290	3.8	7.76	3.0	40	3.6	40	6.52
11-16-70	83	91	11815	126	2536	105.53	16.65	3.32	2.4	140	3.8	7.74	1.2	340	2.8	40	6.56
11-16-70	79	92	11712	144	2523	105.53	16.65	3.32	1.4	160	130	7.72	1.4	130	1.4	190	6.55
11-16-70	83	97	11743	129	2524	105.53	16.65	3.32	1.0	140	140	7.72	.4	200	2.4	290	6.50
11-16-70	79	93	11742	126	2517	105.53	16.65	3.32	3.9	300	360	7.75	5.4	330	7.2	290	6.56
11-16-70	79	94	11637	129	2517	105.53	16.65	3.32	2.4	143	190	7.76	7.2	20	7.6	70	6.52
11-16-70	79	95	11631	134	2522	105.53	16.65	3.32	3.8	40	90	7.77	3.0	210	2.2	340	6.56
11-16-70	79	96	11714	07	2514	105.53	16.65	3.32	1.4	140	250	7.74	2.2	20	2.8	340	6.52
11-16-70	79	97	11532	140	2514	105.53	16.65	3.32	3.0	150	250	7.72	5.6	240	.6	320	6.54
11-16-70	79	98	11647	179	2516	105.53	16.65	3.32	3.0	122	130	7.72	5.6	240	6.6	700	6.50
11-16-70	79	99	11675	161	2522	105.53	16.65	3.32	4.0	20	150	7.74	2.0	160	3.4	740	6.54
11-16-70	85	91	11753	119	2554	107.04	21.64	-1.03	3.0	283	200	7.74	2.0	230	4.4	140	6.55
11-16-70	85	92	11877	113	2560	107.04	21.64	-1.03	2.2	283	200	7.74	2.0	230	4.4	140	6.55
11-16-70	85	93	11725	113	2547	107.04	21.64	-1.03	4.4	200	240	7.72	2.4	240	1.4	250	6.60
11-16-70	85	94	11725	113	2547	107.04	21.64	-1.03	3.0	240	280	7.70	2.6	210	4.6	150	6.60
11-16-70	85	95	11750	124	2554	107.04	21.64	-1.03	3.0	250	250	7.64	2.8	360	2.4	360	6.60
11-16-70	86	91	11653	113	2514	107.04	21.64	-1.03	4.2	293	230	7.74	2.7	480	2.4	340	6.55
11-16-70	86	92	11672	96	2444	107.04	21.64	-1.03	2.0	130	230	7.74	4.6	360	5.6	310	6.52
11-16-70	86	93	11337	110	2479	107.04	21.64	-1.03	4.0	130	130	7.74	4.4	130	6.0	90	6.52
11-16-70	86	94	11529	110	2489	107.04	21.64	-1.03	2.0	300	130	7.74	1.2	260	2.2	260	6.52
11-16-70	86	95	11493	96	2506	107.04	21.64	-1.03	4.0	350	140	7.74	5.0	300	7.6	310	6.54
11-16-70	87	91	11525	144	2505	107.04	21.64	-1.03	2.6	243	350	7.70	2.4	240	7.4	240	6.52
11-16-70	87	92	11547	112	2512	107.04	21.64	-1.03	1.8	50	180	7.74	2.4	370	3.4	240	6.54
11-16-70	87	93	11547	112	2512	107.04	21.64	-1.03	1.0	130	180	7.74	2.4	370	3.4	240	6.54
11-16-70	87	94	11547	112	2512	107.04	21.64	-1.03	1.4	100	150	7.74	2.4	370	3.4	240	6.54
11-16-70	87	95	11547	112	2512	107.04	21.64	-1.03	1.0	140	150	7.74	1.0	140	1.6	300	6.54
11-16-70	88	91	11494	122	2504	107.04	21.64	-1.03	2.4	130	340	7.74	4.2	340	4.4	20	6.62
11-16-70	88	92	11612	125	2505	107.04	21.64	-1.03	1.9	251	170	7.74	2.4	190	2.6	170	6.62

DATE TESTED	LOT NO	PROJ RANGE (YDS)	ORIFT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC DEVIATION (PERCENT)	RANGE (YDS)	CROSS WIND (KTS)	INFERT LOADED				EMPTY			
								RIGHT PLANE DYNAMIC BALANCE (IN-07) (DFG)	LEFT PLANE DYNAMIC BALANCE (IN-07) (DFG)	CENTER OF GRAVITY (IN)	RIGHT PLANE DYNAMIC BALANCE (IN-07) (DFG)	LEFT PLANE DYNAMIC BALANCE (IN-07) (DFG)	CENTER OF GRAVITY (IN)		
2-14-73	88	83 11515	125	2534	107.04	21.64	-1.03	3.6	294	7.72	4.6	260	260	6.55	250
2-14-73	88	84 11412	115	2539	107.04	21.64	-1.03	2.4	360	7.74	3.4	350	350	6.59	340
2-14-73	88	85 11477	117	2511	107.04	21.64	-1.03	2.2	120	7.64	2.2	40	40	6.55	30
2-14-73	89	91 11679	116	2537	107.04	21.64	-1.03	3.5	350	7.74	3.4	310	310	6.62	300
2-14-73	89	82 11514	105	2490	107.04	21.64	-1.03	4.0	110	7.74	4.0	70	70	6.55	60
2-14-73	89	83 11464	102	2489	107.04	21.64	-1.03	2.4	360	7.74	2.4	240	240	6.65	230
2-14-73	89	84 11536	114	2516	107.04	21.64	-1.03	2.8	69	7.74	3.0	70	70	6.56	60
2-14-73	89	85 11509	114	2495	107.04	21.64	-1.03	3.4	363	7.70	4.2	340	340	6.60	330
2-14-73	90	81 11508	115	2511	107.04	21.64	-1.03	3.8	80	7.70	4.2	80	80	6.60	70
2-14-73	90	82 11437	112	2494	107.04	21.64	-1.03	1.8	160	7.74	2.0	150	150	6.60	140
2-14-73	90	83 11437	110	2498	107.04	21.64	-1.03	5.6	130	7.72	6.0	120	120	6.58	110
2-14-73	90	84 11555	116	2533	107.04	21.64	-1.03	2.0	170	7.70	3.0	160	160	6.59	150
2-14-73	90	85 11517	114	2512	107.04	21.64	-1.03	1.0	104	7.68	1.8	90	90	6.56	80
2-14-73	91	81 11532	122	2495	107.04	21.64	-1.03	1.8	60	7.74	1.6	100	100	6.55	90
2-14-73	91	82 11511	120	2497	107.04	21.64	-1.03	5.2	300	7.70	5.4	280	280	6.56	270
2-14-73	91	83 11508	122	2516	107.04	21.64	-1.03	2.2	150	7.72	3.8	140	140	6.60	130
2-14-73	91	84 11538	123	2496	107.04	21.64	-1.03	2.6	160	7.70	3.2	120	120	6.60	110
2-14-73	91	85 11508	114	2499	107.04	21.64	-1.03	3.0	220	7.74	4.6	190	190	6.59	180
2-14-73	92	81 11514	121	2504	107.04	21.64	-1.03	4.0	100	7.70	5.0	80	80	6.58	70
2-14-73	92	82 11519	120	2501	107.04	21.64	-1.03	1.0	200	7.70	1.4	220	220	6.61	210
2-14-73	92	83 11521	124	2493	107.04	21.64	-1.03	3.0	120	7.70	1.4	90	90	6.59	80
2-14-73	92	84 11529	124	2501	107.04	21.64	-1.03	2.0	240	7.74	2.4	230	230	6.62	220
2-14-73	92	85 11437	124	2493	107.04	21.64	-1.03	1.4	90	7.68	1.4	160	160	6.55	150
2-14-73	93	81 11535	123	2498	107.04	21.64	-1.03	3.0	170	7.70	2.8	150	150	6.58	140
2-14-73	93	82 11631	126	2530	107.04	21.64	-1.03	1.6	90	7.70	2.0	50	50	6.57	40
2-14-73	93	83 11565	129	2500	107.04	21.64	-1.03	3.8	100	7.68	4.4	100	100	6.55	90
2-14-73	93	84 11513	132	2490	107.04	21.64	-1.03	2.4	290	7.74	3.4	300	300	6.55	290
2-14-73	93	85 11545	127	2495	107.04	21.64	-1.03	1.2	230	7.70	3.0	230	230	6.57	220
2-14-73	94	81 11556	137	2497	107.04	21.64	-1.03	2.6	240	7.70	2.8	250	250	6.58	240
2-14-73	94	82 11558	139	2496	107.04	21.64	-1.03	1.2	330	7.68	2.0	340	340	6.58	330
2-14-73	94	83 11518	139	2497	107.04	21.64	-1.03	3.2	70	7.74	3.8	40	40	6.55	30
2-14-73	94	84 11562	141	2531	107.04	21.64	-1.03	1.4	170	7.70	2.0	100	100	6.59	90
2-14-73	94	85 11515	136	2497	107.04	21.64	-1.03	2.6	250	7.72	3.8	230	230	6.60	220
2-14-73	95	81 11551	132	2499	107.04	21.64	-1.03	1.2	220	7.72	2.4	170	170	6.58	160
2-14-73	95	82 11525	112	2512	107.04	21.64	-1.03	4.4	20	7.72	4.4	350	350	6.51	340
2-14-73	95	83 11478	142	2492	107.04	21.64	-1.03	3.8	110	7.70	4.8	100	100	6.56	90
2-14-73	95	84 11518	140	2499	107.04	21.64	-1.03	3.6	270	7.68	3.4	280	280	6.57	270
2-14-73	95	85 11514	137	2495	107.04	21.64	-1.03	1.2	40	7.70	1.8	130	130	6.56	120
2-14-73	96	81 11514	147	2493	107.04	21.64	-1.03	1.2	260	7.70	2.0	30	30	6.56	20
2-14-73	96	82 11510	137	2495	107.04	21.64	-1.03	1.0	320	7.68	1.0	240	240	6.58	230
2-14-73	96	83 11590	177	2507	107.04	21.64	-1.03	3.0	220	7.68	1.0	240	240	6.51	230
2-14-73	96	84 11437	115	2498	107.04	21.64	-1.03	2.6	70	7.72	2.2	50	50	6.50	40
2-14-73	96	85 11428	137	2486	107.04	21.64	-1.03	2.6	60	7.68	1.0	260	260	6.49	250
2-14-73	97	81 11519	164	2509	105.53	16.65	1.32	5.6	140	7.68	4.4	170	170	6.58	160
2-14-73	97	82 11513	162	2513	105.53	16.65	1.32	5.6	120	7.66	2.0	350	350	6.56	340
2-14-73	97	83 11774	134	2534	105.53	16.65	1.32	2.8	270	7.68	3.4	270	270	6.53	260

DATE (TESTED)	LOT NO	PROJ NO	RANGE (YDS)	DRIFT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC COEFFICIENT (PERCENT)	WIND (KTS)	CROSS WIND (KTS)	INERT LOADS				EMPTY				
									RIGHT PLANE		LEFT PLANE		CENTER OF GRAVITY (IN)	RIGHT PLANE		LEFT PLANE	
									DYNAMIC BALANCE (IN-02) (DEG)	(IN-07) (DEG)	DYNAMIC BALANCE (IN-02) (DEG)	(IN-07) (DEG)		DYNAMIC BALANCE (IN-02) (DEG)	(IN-07) (DEG)		
11-16-70	97	8*	11709	149	2508	105.53	16.65	3.32	2.6	329	8.0	360	7.66	4.0	360	6.52	
11-16-70	97	35	11707	07	2509	105.53	16.65	3.32	1.0	50	2.2	100	7.70	1.0	140	6.52	
11-16-70	99	31	11735	91	2510	105.53	16.65	3.32	4.2	90	3.6	140	7.64	5.6	110	6.53	
11-16-70	95	32	11716	133	2521	105.53	16.65	3.32	1.2	20	3.0	720	7.68	2.6	50	6.52	
11-16-70	98	83	11745	101	2513	105.53	16.65	3.32	1.6	200	.6	750	7.58	1.6	30	6.52	
11-16-70	98	94	11733	114	2512	105.53	16.65	3.32	.8	20	1.2	20	7.70	2.4	40	6.52	
11-16-70	98	85	11717	118	2511	105.53	16.65	3.32	2.4	10	5.6	10	7.68	2.9	40	6.56	
11-16-70	99	31	11732	121	2512	105.53	16.65	3.32	1.8	250	6.4	310	7.70	3.2	350	6.52	
11-16-70	99	82	11725	161	2515	105.53	16.65	3.32	1.8	250	6.4	150	7.68	1.6	70	6.54	
11-16-70	99	83	11740	65	2515	105.53	16.65	3.32	1.4	170	7.8	190	7.68	4.0	190	6.56	
11-16-70	99	34	11770	131	2519	105.53	16.65	3.32	2.8	100	7.6	220	7.66	5.0	220	6.51	
11-16-70	99	81	11737	99	2532	105.53	16.65	3.32	4.2	180	4.4	270	7.64	5.4	190	6.54	
11-16-70	100	91	11717	159	2530	105.53	16.65	3.32	1.6	140	4.4	210	7.66	4.0	210	6.54	
11-16-70	100	92	11711	183	2530	105.53	16.65	3.32	1.6	140	4.4	210	7.66	4.0	210	6.49	
11-16-70	100	93	11734	106	2522	105.53	16.65	3.32	1.8	230	4.0	210	7.66	3.4	250	6.49	
11-16-70	100	94	11745	111	2519	105.53	16.65	3.32	5.4	350	4.4	250	7.70	6.6	300	6.55	
11-16-70	101	35	11729	112	2522	105.53	16.65	3.32	1.4	280	5.8	270	7.61	3.8	300	6.53	
11-16-70	101	91	11733	113	2530	105.53	16.65	3.32	4.2	730	2.2	190	7.60	3.4	40	6.52	
11-16-70	101	82	11711	131	2531	105.53	16.65	3.32	1.4	130	3.0	320	7.57	4.8	200	6.52	
11-16-70	101	33	11732	123	2530	105.53	16.65	3.32	3.2	140	1.6	210	7.58	4.8	300	6.52	
11-16-70	101	94	11719	90	2532	105.53	16.65	3.32	2.0	180	4.8	150	7.66	1.0	170	6.50	
11-16-70	101	95	11738	117	2532	105.53	16.65	3.32	1.6	280	3.8	220	7.61	1.0	230	6.50	
11-16-70	102	31	11739	117	2532	105.53	16.65	3.32	5.4	280	2.2	210	7.66	5.0	230	6.53	
11-16-70	102	82	11755	112	2533	105.53	16.65	3.32	4.0	260	1.4	140	7.58	4.2	310	6.54	
11-16-70	102	93	11754	111	2533	105.53	16.65	3.32	4.2	50	5.2	50	7.66	6.4	160	6.55	
11-16-70	102	94	11754	111	2534	105.53	16.65	3.32	2.6	200	7.0	120	7.68	1.4	300	6.58	
11-16-70	102	95	11703	106	2530	105.53	16.65	3.32	1.4	190	1.4	70	7.58	2.2	190	6.52	
11-16-70	103	81	11741	100	2531	105.53	16.65	3.32	2.6	150	5.4	40	7.58	3.2	160	6.55	
11-16-70	103	32	11741	106	2532	105.53	16.65	3.32	1.4	310	5.4	40	7.70	1.0	320	6.58	
11-16-70	103	83	11737	115	2530	105.53	16.65	3.32	6.0	180	2.0	130	7.66	2.9	190	6.51	
11-16-70	103	84	11740	115	2530	105.53	16.65	3.32	6.0	250	3.2	130	7.66	5.4	240	6.52	
11-16-70	104	35	11731	112	2534	105.53	16.65	3.32	4.2	200	2.6	200	7.70	4.6	200	6.49	
11-16-70	104	91	11732	109	2534	105.53	16.65	3.32	3.4	140	2.6	230	7.60	4.4	230	6.49	
11-16-70	104	32	11742	109	2534	105.53	16.65	3.32	5.6	240	3.4	160	7.60	5.4	240	6.50	
11-16-70	104	90	11727	115	2538	105.53	16.65	3.32	2.6	350	3.4	100	7.60	5.4	350	6.53	
11-16-70	104	75	11740	102	2538	105.53	16.65	3.32	2.6	100	3.4	200	7.60	5.4	200	6.53	
11-16-70	105	81	11740	102	2538	105.53	16.65	3.32	2.6	100	3.4	200	7.60	5.4	200	6.53	
11-16-70	105	82	11741	102	2538	105.53	16.65	3.32	2.6	100	3.4	200	7.60	5.4	200	6.53	
11-16-70	105	93	11739	114	2541	105.53	16.65	3.32	1.2	170	4.0	170	7.64	1.2	100	6.50	
11-16-70	105	94	11739	104	2539	105.53	16.65	3.32	1.2	170	4.0	170	7.64	1.2	100	6.50	
11-16-70	105	95	11740	104	2539	105.53	16.65	3.32	1.2	170	4.0	170	7.64	1.2	100	6.50	
11-16-70	106	81	11740	103	2538	105.53	16.65	3.32	1.0	150	4.0	150	7.64	1.0	150	6.50	
11-16-70	106	82	11735	103	2539	105.53	16.65	3.32	1.0	150	4.0	150	7.64	1.0	150	6.50	
11-16-70	106	83	11735	103	2539	105.53	16.65	3.32	1.0	150	4.0	150	7.64	1.0	150	6.50	
11-16-70	106	93	11731	112	2544	105.53	16.65	3.32	3.6	210	5.6	210	7.64	3.6	210	6.50	
11-16-70	106	94	11730	111	2544	105.53	16.65	3.32	3.6	210	5.6	210	7.64	3.6	210	6.50	

DATE TESTED	LOT NO	PROJ NO	RANGE (YDS)	DRIFT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC DENSITY (PERCENT)	RANGE WIND (KTS)	CROSS WIND (KTS)	INCOPT LOADS				EMPTY			
									RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)
11-23-70	106	82	11735	110	2530	104.28	23.65	-43	2.0	160	7.64	1.6	13	5.4	33	6.59
11-23-70	107	91	11811	117	2534	104.28	23.65	-43	2.2	220	7.64	1.8	210	5.8	204	6.50
11-23-70	107	92	11830	130	2536	104.28	23.65	-44	3.4	77	7.70	4.2	60	4.2	80	6.50
11-23-70	107	83	11849	101	2518	104.28	23.65	-43	5.2	290	7.64	6.8	270	5.4	250	6.50
11-23-70	107	84	11787	100	2519	104.28	23.65	-43	2.6	120	7.64	2.6	110	7.0	100	6.50
11-23-70	107	85	11850	109	2528	104.28	23.65	-43	3.2	174	7.64	4.4	133	6.4	150	6.47
11-23-70	108	81	11774	107	2529	104.28	23.65	-43	3.4	60	7.70	4.8	40	4.4	60	6.48
11-23-70	108	82	11845	84	2523	104.28	23.65	-43	1.9	290	7.70	1.8	310	4.4	390	6.50
11-23-70	108	83	11818	132	2524	104.28	23.65	-43	3.0	30	7.64	4.0	360	5.8	160	6.54
11-23-70	109	85	11809	103	2529	104.28	23.65	-43	2.2	240	7.70	2.4	210	3.2	100	6.50
11-23-70	109	81	11927	110	2531	104.28	23.65	-43	3.0	330	7.64	3.4	310	6.0	350	6.48
11-23-70	109	82	11955	100	2534	104.28	23.65	-43	2.6	133	7.66	1.4	134	5.2	120	6.58
11-23-70	109	83	11956	100	2534	104.28	23.65	-43	5.6	80	7.64	6.0	74	6.0	90	6.52
11-23-70	109	84	11848	133	2526	104.28	23.65	-43	1.2	280	7.64	2.6	270	3.6	260	6.53
11-23-70	109	85	11852	95	2540	104.28	23.65	-43	4.6	70	7.64	2.8	30	2.4	140	6.52
11-23-70	110	91	11872	108	2540	104.28	23.65	-43	1.0	220	7.64	2.4	140	4.6	170	6.52
11-23-70	110	92	11822	104	2543	104.28	23.65	-43	2.4	290	7.64	3.0	250	2.8	240	6.50
11-23-70	110	93	11782	105	2532	104.28	23.65	-43	3.0	300	7.64	1.8	280	1.8	210	6.51
11-23-70	110	84	11833	97	2526	104.28	23.65	-43	3.0	300	7.64	3.8	300	7.6	300	6.50
11-23-70	110	95	11843	98	2543	104.28	23.65	-43	4.2	130	7.64	5.6	120	4.0	110	6.53
11-23-70	111	81	11856	97	2532	104.28	23.65	-43	1.6	240	7.64	1.6	264	1.4	340	6.53
11-23-70	111	82	11832	102	2523	104.28	23.65	-43	2.4	80	7.70	2.8	70	2.4	90	6.50
11-23-70	111	83	11853	101	2526	104.28	23.65	-43	3.0	100	7.70	2.8	70	2.4	140	6.50
11-23-70	111	84	11783	101	2522	104.28	23.65	-43	4.2	330	7.64	3.6	290	5.2	140	6.52
11-23-70	111	85	11919	51	2545	104.28	23.65	-43	3.8	200	7.64	3.0	190	6.0	150	6.48
11-23-70	112	81	11927	110	2534	104.28	23.65	-43	1.5	250	7.70	2.4	240	1.4	310	6.50
11-23-70	112	82	11937	101	2541	104.28	23.65	-43	5.4	90	7.70	5.2	90	5.0	40	6.54
11-23-70	112	83	11830	110	2535	104.28	23.65	-43	3.0	180	7.66	3.4	180	2.8	130	6.54
11-23-70	112	84	11830	104	2527	104.28	23.65	-43	1.6	300	7.64	1.6	260	1.4	330	6.54
11-23-70	112	85	11831	103	2537	104.28	23.65	-43	1.8	70	7.64	2.0	100	1.4	270	6.50
11-23-70	113	91	11849	98	2542	104.28	23.65	-43	1.4	210	7.64	2.0	250	4.0	210	6.52
11-23-70	113	83	11834	96	2534	104.28	23.65	-43	5.2	70	7.64	5.4	50	4.4	40	6.52
11-23-70	113	84	11852	94	2530	104.28	23.65	-43	1.6	140	7.64	1.4	140	1.4	140	6.50
11-23-70	113	85	11878	104	2546	104.28	23.65	-43	3.4	290	7.64	2.8	290	1.4	240	6.54
11-23-70	114	81	11804	106	2540	104.28	23.65	-43	3.0	280	7.64	3.2	280	7.2	310	6.00
11-23-70	114	82	11811	104	2543	104.28	23.65	-43	3.4	160	7.70	2.6	280	7.4	260	6.54
11-23-70	114	83	11936	110	2543	104.28	23.65	-43	1.2	130	7.64	1.4	90	5.4	60	6.54
11-23-70	114	84	11936	82	2534	104.28	23.65	-43	1.6	200	7.64	1.8	240	3.0	110	6.55
11-23-70	114	85	11848	102	2534	104.28	23.65	-43	3.4	260	7.70	2.8	250	2.8	250	6.55
11-23-70	115	91	11849	107	2541	104.28	23.65	-43	2.4	160	7.65	3.4	140	1.6	150	6.56
11-23-70	115	81	11845	100	2542	104.28	23.65	-43	3.0	50	7.64	3.4	140	3.4	60	6.56
11-23-70	115	82	11845	100	2542	104.28	23.65	-43	1.6	120	7.64	1.0	140	2.4	130	6.50
11-23-70	115	83	11739	99	2542	104.28	23.65	-43	1.4	210	7.70	3.0	190	3.2	230	6.54
11-23-70	115	84	11893	101	2546	104.28	23.65	-43	2.4	270	7.66	3.0	310	3.0	220	6.58
11-23-70	115	85	11870	99	2540	104.28	23.65	-43	1.6	70	7.64	1.8	60	2.2	360	6.56

DATE TESTED	LOT NO	PROJ NO	RANGE (YDS)	ORIFT (YES)	INITIAL VELOCITY (FT/SEC)	BALLISTIC DENSITY (PERCENT)	RANGE (KTS)	CROSS WIND (KTS)	INLET LOADS				FWDY				
									RIGHT PLANE DYNAMIC BALANCE (IN-07) (DEG)	LEFT PLANE DYNAMIC BALANCE (IN-02) (DEG)	CENTER OF GRAVITY (IN)	RIGHT PLANE DYNAMIC BALANCE (IN-02) (DEG)	LEFT PLANE DYNAMIC BALANCE (IN-07) (DEG)	CENTER OF GRAVITY (IN)			
11-23-73	116	91	11017	112	2542	104.28	23.65	-43	3.2	150	6.5	150	3.5	150	2.4	140	6.52
11-23-73	110	82	11012	103	2546	104.28	23.65	-43	6.2	360	5.0	150	7.0	360	4.8	110	6.52
11-23-73	116	83	11012	102	2544	104.28	23.65	-43	3.8	350	4.4	11	3.6	200	3.4	350	6.50
11-23-73	116	84	11016	95	2544	104.28	23.65	-43	1.8	200	6.0	190	2.6	200	5.4	200	6.50
11-23-73	116	85	11028	94	2544	104.28	23.65	-43	3.8	280	4.8	320	2.6	290	4.4	160	6.52
11-23-73	117	91	11016	223	2517	103.62	15.15	14.16	2.8	240	5.0	110	6.0	140	4.4	140	6.62
11-23-73	117	82	11016	223	2517	103.62	15.15	14.16	4.2	140	5.3	60	7.64	1.8	150	2.0	4.55
11-23-73	117	84	11016	231	2551	103.62	15.15	14.16	2.4	350	4.6	340	2.6	11	5.4	310	6.57
11-23-73	117	95	11017	235	2519	103.62	15.15	14.16	4.0	40	4.2	70	7.70	40	2.0	170	6.63
11-23-73	118	91	11025	224	2540	103.62	15.15	14.16	2.0	170	1.6	130	7.3	40	1.4	50	6.60
11-23-73	118	92	11038	229	2536	103.62	15.15	14.16	1.8	50	3.8	100	7.59	70	6.62		
11-23-73	118	94	11027	232	2531	103.62	15.15	14.16	4.0	150	3.2	260	5.2	290	5.4	290	6.57
11-23-73	118	95	11014	225	2485	103.62	15.15	14.16	3.4	160	5.8	190	4.6	170	1.8	180	6.65
11-23-73	119	81	11019	213	2573	103.62	15.15	14.16	6.0	130	5.3	130	7.0	110	4.2	130	6.62
11-23-73	119	92	11033	220	2493	103.62	15.15	14.16	1.2	160	5.0	120	7.0	150	3.4	150	6.55
11-23-73	119	93	11039	214	2545	103.62	15.15	14.16	6.8	100	5.6	130	7.6	70	1.0	100	6.56
11-23-73	119	94	11037	229	2548	103.62	15.15	14.16	3.0	80	6.4	300	3.5	300	5.2	290	6.57
11-23-73	119	95	11011	205	2515	103.62	15.15	14.16	2.0	220	6.8	240	2.2	230	3.0	250	6.57
11-23-73	120	31	11016	236	2537	103.62	15.15	14.16	3.0	220	6.8	170	7.0	230	1.8	230	6.54
11-23-73	120	92	11016	235	2570	103.62	15.15	14.16	6.6	130	5.0	220	7.2	60	3.4	190	6.64
11-23-73	120	83	11012	232	2570	103.62	15.15	14.16	3.4	140	5.0	240	3.4	130	1.6	190	6.59
11-23-73	120	85	11018	215	2545	103.62	15.15	14.16	7.0	100	5.4	180	5.9	160	5.0	120	6.59
11-23-73	121	81	11013	223	2578	103.62	15.15	14.16	5.0	110	5.4	160	5.4	110	5.2	200	6.59
11-23-73	121	92	11013	221	2578	103.62	15.15	14.16	4.8	140	5.4	220	5.4	240	5.2	200	6.59
11-23-73	121	93	11019	221	2578	103.62	15.15	14.16	3.4	210	5.4	170	5.8	180	5.2	240	6.59
11-23-73	121	87	11019	211	2578	103.62	15.15	14.16	2.4	210	5.4	170	5.8	180	5.2	240	6.59
11-23-73	121	89	11019	211	2578	103.62	15.15	14.16	2.4	210	5.4	170	5.8	180	5.2	240	6.59
11-23-73	121	91	11019	211	2578	103.62	15.15	14.16	2.4	210	5.4	170	5.8	180	5.2	240	6.59
11-23-73	121	93	11019	211	2578	103.62	15.15	14.16	2.4	210	5.4	170	5.8	180	5.2	240	6.59
11-23-73	122	82	11016	211	2578	103.62	15.15	14.16	1.4	240	5.4	160	5.4	220	5.2	240	6.59
11-23-73	122	83	11016	211	2578	103.62	15.15	14.16	1.4	240	5.4	160	5.4	220	5.2	240	6.59
11-23-73	122	85	11016	211	2578	103.62	15.15	14.16	1.4	240	5.4	160	5.4	220	5.2	240	6.59
11-23-73	123	95	11014	211	2578	103.62	15.15	14.16	2.4	210	5.4	170	5.8	180	5.2	240	6.59
11-23-73	123	87	11019	211	2578	103.62	15.15	14.16	2.4	210	5.4	170	5.8	180	5.2	240	6.59
11-23-73	123	89	11019	211	2578	103.62	15.15	14.16	2.4	210	5.4	170	5.8	180	5.2	240	6.59
11-23-73	123	91	11019	211	2578	103.62	15.15	14.16	2.4	210	5.4	170	5.8	180	5.2	240	6.59
11-23-73	123	93	11019	211	2578	103.62	15.15	14.16	2.4	210	5.4	170	5.8	180	5.2	240	6.59
11-23-73	124	82	11016	211	2578	103.62	15.15	14.16	1.4	240	5.4	160	5.4	220	5.2	240	6.59
11-23-73	124	83	11016	211	2578	103.62	15.15	14.16	1.4	240	5.4	160	5.4	220	5.2	240	6.59
11-23-73	124	85	11016	211	2578	103.62	15.15	14.16	1.4	240	5.4	160	5.4	220	5.2	240	6.59
11-23-73	124	95	11014	211	2578	103.62	15.15	14.16	2.4	210	5.4	170	5.8	180	5.2	240	6.59
11-23-73	124	87	11019	211	2578	103.62	15.15	14.16	2.4	210	5.4	170	5.8	180	5.2	240	6.59
11-23-73	124	89	11019	211	2578	103.62	15.15	14.16	2.4	210	5.4	170	5.8	180	5.2	240	6.59
11-23-73	124	91	11019	211	2578	103.62	15.15	14.16	2.4	210	5.4	170	5.8	180	5.2	240	6.59
11-23-73	124	93	11019	211	2578	103.62	15.15	14.16	2.4	210	5.4	170	5.8	180	5.2	240	6.59
11-23-73	125	91	11017	112	2542	104.28	23.65	-43	3.2	150	6.5	150	3.5	150	2.4	140	6.52

DATE TESTED	LOT	PROJ	YRTE (YDS)	DRIFT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC JENSITY (PERCENT)	RANGE WIND (KTS)	CROSS WIND (KTS)	INERT LOADED				EMPTY			
									RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	CENTER OF GRAVITY (IN)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	CENTER OF GRAVITY (IN)		
11-30-73	125	82	11734	229	2517	103.02	15.35	14.16	1.8	140	2.1	2.2	190	1.2	350	6.60
11-30-73	125	83	11731	234	2519	103.02	15.35	14.16	1.8	13	7.72	7.72	10	5.8	90	6.55
11-30-73	125	94	11730	234	2519	103.02	15.35	14.16	1.6	273	7.64	5.4	240	2.0	80	6.58
11-30-73	125	95	11730	216	2520	103.02	15.35	14.16	3.6	20	7.70	5.2	40	4.6	30	6.55
12-07-73	126	81	11640	196	2534	108.79	24.61	10.50	1.6	100	7.70	0.0		0.0		0.00
12-07-73	126	82	11643	195	2537	108.79	24.61	10.50	1.6	140	7.74	0.0		0.0		0.00
12-07-73	126	83	11773	195	2537	108.79	24.61	10.50	2.0	310	7.72	0.0		0.0		0.00
12-07-73	126	84	11751	192	2537	108.79	24.61	10.50	2.6	180	7.74	0.0		0.0		0.00
12-07-73	126	85	11751	162	2537	108.79	24.61	10.50	1.8	300	7.70	0.0		0.0		0.00
12-07-73	127	81	11591	191	2542	108.79	24.61	10.50	6.0	20	7.70	0.0		0.0		0.00
12-07-73	127	82	11716	184	2547	108.79	24.61	10.50	2.4	360	7.70	0.0		0.0		0.00
12-07-73	127	83	11742	179	2544	108.79	24.61	10.50	3.0	240	7.70	0.0		0.0		0.00
12-07-73	127	84	11753	179	2543	108.79	24.61	10.50	6.0	220	7.70	0.0		0.0		0.00
12-07-73	127	85	11754	159	2530	108.79	24.61	10.50	5.0	190	7.70	0.0		0.0		0.00
12-07-73	129	91	11726	177	2532	108.79	24.61	10.50	3.6	233	7.70	0.0		0.0		0.00
12-07-73	129	92	11719	154	2547	108.79	24.61	10.50	4.4	40	7.72	0.0		0.0		0.00
12-07-73	129	93	11671	173	2547	108.79	24.61	10.50	4.4	360	7.72	0.0		0.0		0.00
12-07-73	129	84	11739	179	2543	108.79	24.61	10.50	3.8	10	7.70	0.0		0.0		0.00
12-07-73	129	85	11645	145	2542	108.79	24.61	10.50	2.4	140	7.70	0.0		0.0		0.00
12-07-73	129	81	11634	165	2528	108.79	24.61	10.50	2.4	90	7.70	0.0		0.0		0.00
12-07-73	129	93	11723	162	2541	108.79	24.61	10.50	2.8	360	7.72	0.0		0.0		0.00
12-07-73	129	94	11734	156	2542	108.79	24.61	10.50	1.4	230	7.64	0.0		0.0		0.00
12-07-73	129	95	11622	160	2542	108.79	24.61	10.50	5.0	360	7.70	0.0		0.0		0.00
12-07-73	130	81	11737	157	2541	108.79	24.61	10.50	1.4	70	7.72	0.0		0.0		0.00
12-07-73	130	82	11611	173	2540	108.79	24.61	10.50	2.4	260	7.70	0.0		0.0		0.00
12-07-73	130	83	11649	157	2538	108.79	24.61	10.50	5.4	340	7.70	0.0		0.0		0.00
12-07-73	130	84	11630	174	2517	108.79	24.61	10.50	2.6	30	7.70	0.0		0.0		0.00
12-07-73	130	85	11672	174	2513	108.79	24.61	10.50	4.0	90	7.70	0.0		0.0		0.00
12-07-73	131	81	11715	174	2513	108.79	24.61	10.50	6.2	240	7.72	0.0		0.0		0.00
12-07-73	131	82	11771	174	2542	108.79	24.61	10.50	3.2	270	7.72	0.0		0.0		0.00
12-07-73	131	83	11635	174	2542	108.79	24.61	10.50	1.4	80	7.64	0.0		0.0		0.00
12-07-73	131	84	11632	174	2540	108.79	24.61	10.50	6.4	340	7.70	0.0		0.0		0.00
12-07-73	131	85	11631	174	2540	108.79	24.61	10.50	2.6	300	7.70	0.0		0.0		0.00
12-07-73	132	71	11669	191	2510	108.79	24.61	10.50	4.2	310	7.70	0.0		0.0		0.00
12-07-73	132	82	11636	171	2525	108.79	24.61	10.50	5.4	280	7.72	0.0		0.0		0.00
12-07-73	132	83	11635	195	2519	108.79	24.61	10.50	2.2	160	7.64	0.0		0.0		0.00
12-07-73	132	84	11638	169	2517	108.79	24.61	10.50	4.4	170	7.68	0.0		0.0		0.00
12-07-73	132	85	11652	169	2517	108.79	24.61	10.50	4.4	340	7.68	0.0		0.0		0.00
12-07-73	133	81	11634	181	2519	108.79	24.61	10.50	4.4	80	7.72	0.0		0.0		0.00
12-07-73	133	82	11633	171	2515	108.79	24.61	10.50	2.6	320	7.72	0.0		0.0		0.00
12-07-73	133	83	11637	173	2514	108.79	24.61	10.50	1.2	260	7.72	0.0		0.0		0.00
12-07-73	133	84	11639	162	2511	108.79	24.61	10.50	1.0	270	7.70	0.0		0.0		0.00
12-07-73	133	85	11642	176	2513	108.79	24.61	10.50	3.6	360	7.72	0.0		0.0		0.00
12-07-73	134	31	11634	184	2518	108.79	24.61	10.50	2.6	340	7.73	0.0		0.0		0.00
12-07-73	134	82	11631	199	2512	108.79	24.61	10.50	7.4	60	7.75	0.0		0.0		0.00

DATE TESTED	LOT	PROJ NO	RANGE (YDS)	DRIFT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC COEFF (PERCENT)	PANGE MINO (KTS)	CROSS WIND (KTS)	INERT LOADS				EMPTY			
									RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	CENTER OF GRAVITY (IN)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	CENTER OF GRAVITY (IN)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	CENTER OF GRAVITY (IN)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	CENTER OF GRAVITY (IN)
12-07-70	134	93	11458	167	2518	104.79	24.61	11.50	3.0	320	6.8	290	7.72	-0.0	-0.0	-0.00
12-07-70	134	84	11518	173	2514	108.79	24.61	10.50	2.4	90	4.6	340	7.74	-0.0	-0.0	-0.00
12-07-70	134	95	11438	161	2495	108.79	24.61	10.50	5.0	70	4.4	90	7.75	-0.0	-0.0	-0.00
12-07-70	135	91	11395	159	2495	104.79	24.61	10.50	4.6	370	4.4	120	7.68	-0.0	-0.0	-0.00
12-07-70	135	92	11512	167	2502	104.79	24.61	10.50	8	760	2.2	360	7.75	-0.0	-0.0	-0.00
12-07-70	135	93	11465	155	2495	108.79	24.61	10.50	2.2	150	7.7	190	7.73	-0.0	-0.0	-0.00
12-07-70	135	84	11559	162	2493	108.79	24.61	10.50	1.4	160	4.2	190	7.74	-0.0	-0.0	-0.00
12-07-70	135	95	11527	149	2502	108.79	24.61	10.50	1.6	300	5.0	170	7.68	-0.0	-0.0	-0.00
1-12-71	136	81	11526	161	2497	106.30	12.32	1.60	3.0	320	7.6	320	7.72	-0.0	-0.0	-0.00
1-12-71	136	92	11537	158	2513	106.30	12.32	1.60	1.0	310	7.0	270	7.75	-0.0	-0.0	-0.00
1-12-71	136	93	11521	165	2495	106.30	12.32	1.60	2.0	270	7.0	270	7.75	-0.0	-0.0	-0.00
1-12-71	136	94	11572	163	2498	106.30	12.32	1.60	2.2	270	7.0	270	7.75	-0.0	-0.0	-0.00
1-12-71	136	85	11677	154	2499	106.30	12.32	1.60	1.6	100	4.2	230	7.76	-0.0	-0.0	-0.00
1-12-71	137	91	11439	163	2497	106.30	12.32	1.60	1.4	130	4.6	190	7.72	-0.0	-0.0	-0.00
1-12-71	137	92	11672	154	2498	106.30	12.32	1.60	1.4	270	3.0	280	7.75	-0.0	-0.0	-0.00
1-12-71	137	93	11431	162	2446	106.30	12.32	1.60	1.6	150	3.6	80	7.74	-0.0	-0.0	-0.00
1-12-71	137	95	11524	159	2492	106.30	12.32	1.60	1.6	110	3.8	50	7.76	-0.0	-0.0	-0.00
1-12-71	137	94	11611	157	2499	106.30	12.32	1.60	7.4	260	8.0	230	7.78	-0.0	-0.0	-0.00
1-12-71	138	91	11617	153	2497	106.30	12.32	1.60	4.0	30	9.0	30	7.72	-0.0	-0.0	-0.00
1-12-71	138	92	11516	152	2498	106.30	12.32	1.60	3.6	10	9.4	60	7.72	-0.0	-0.0	-0.00
1-12-71	138	93	11551	149	2498	106.30	12.32	1.60	2.0	200	3.6	190	7.70	-0.0	-0.0	-0.00
1-12-71	138	74	11514	140	2496	106.30	12.32	1.60	2.4	190	1.0	70	7.71	-0.0	-0.0	-0.00
1-12-71	138	85	11515	141	2496	106.30	12.32	1.60	1.3	180	2.8	260	7.73	-0.0	-0.0	-0.00
1-12-71	139	91	11519	155	2496	106.30	12.32	1.60	5.2	330	7.0	340	7.75	-0.0	-0.0	-0.00
1-12-71	139	92	11572	159	2496	106.30	12.32	1.60	3.2	240	2.6	320	7.71	-0.0	-0.0	-0.00
1-12-71	139	83	11449	163	2495	106.30	12.32	1.60	1.0	180	4.4	260	7.78	-0.0	-0.0	-0.00
1-12-71	139	94	11530	165	2497	106.30	12.32	1.60	1.0	260	3.8	300	7.75	-0.0	-0.0	-0.00
1-12-71	139	95	11445	158	2495	106.30	12.32	1.60	3.2	170	3.0	330	7.75	-0.0	-0.0	-0.00
1-12-71	140	91	11279	91	2501	103.49	12.13	1.43	1.4	80	3.6	270	7.74	-0.0	-0.0	-0.00
1-12-71	140	92	11257	97	2505	103.49	12.13	1.43	2.6	350	6.4	260	7.75	-0.0	-0.0	-0.00
1-12-71	140	93	11243	97	2497	103.49	12.13	1.43	1.4	350	1.3	160	7.75	-0.0	-0.0	-0.00
1-12-71	140	94	11214	105	2497	103.49	12.13	1.43	4.2	350	5.4	160	7.75	-0.0	-0.0	-0.00
1-12-71	140	95	11209	98	2497	103.49	12.13	1.43	0.4	350	5.4	160	7.75	-0.0	-0.0	-0.00
1-12-71	141	91	11145	102	2493	103.49	12.13	1.43	1.2	330	6.2	30	7.75	-0.0	-0.0	-0.00
1-12-71	141	92	11224	95	2495	103.49	12.13	1.43	1.2	330	6.2	30	7.75	-0.0	-0.0	-0.00
1-12-71	141	93	11205	103	2495	103.49	12.13	1.43	2.4	50	2.4	250	7.72	-0.0	-0.0	-0.00
1-12-71	141	94	11131	103	2494	103.49	12.13	1.43	1.4	170	5.4	130	7.75	-0.0	-0.0	-0.00
1-12-71	141	95	11119	94	2493	103.49	12.13	1.43	3.2	200	6.4	70	7.75	-0.0	-0.0	-0.00
1-12-71	142	91	11130	103	2493	103.49	12.13	1.43	2.2	160	1.4	140	7.74	-0.0	-0.0	-0.00
1-12-71	142	92	11132	103	2494	103.49	12.13	1.43	1.4	130	5.4	140	7.74	-0.0	-0.0	-0.00
1-12-71	142	93	11132	103	2494	103.49	12.13	1.43	1.4	130	5.4	140	7.74	-0.0	-0.0	-0.00
1-12-71	142	94	11238	110	2495	103.49	12.13	1.43	4.2	140	6.4	150	7.72	-0.0	-0.0	-0.00
1-12-71	142	95	11232	110	2495	103.49	12.13	1.43	2.2	160	3.4	200	7.75	-0.0	-0.0	-0.00
1-12-71	143	91	11240	98	2493	103.49	12.13	1.43	1.2	130	5.4	140	7.75	-0.0	-0.0	-0.00
1-12-71	143	92	11227	99	2494	103.49	12.13	1.43	3.4	130	4.4	150	7.75	-0.0	-0.0	-0.00
1-12-71	143	93	11133	99	2497	103.49	12.13	1.43	2.4	200	7.6	50	7.72	-0.0	-0.0	-0.00

DATE TESTED	LOT NO	PROJ NO	PANEL ORIFT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC DENSITY (PERCENT)	RANGE WTND (KTS)	CROSS WIND (KTS)	INERT LOADS				EMPTY			
								RIGHT PLANE DYNAMIC BALANCE (IN-OZ) (DEG)	LEFT PLANE DYNAMIC BALANCE (IN-OZ) (DEG)	CENTER OF GRAVITY (TN)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ) (DEG)	LEFT PLANE DYNAMIC BALANCE (IN-OZ) (DEG)	CENTER OF GRAVITY (IN)		
1-14-71	152	85	11422	2496	109.27	6.27	3.07	5.4	113	5.6	163	7.75	-0.0	-0.00	-0.00
1-19-71	153	81	11419	2492	109.27	6.27	3.07	4.0	310	1.2	190	7.71	-0.0	-0.00	-0.00
1-19-71	153	82	11377	2493	109.27	6.27	3.07	3.2	300	3.6	700	7.75	-0.0	-0.00	-0.00
1-19-71	153	83	11373	2496	109.27	6.27	3.07	1.0	250	3.4	243	7.75	-0.0	-0.00	-0.00
1-19-71	153	84	11453	2511	109.27	6.27	3.07	2.8	250	3.6	350	7.75	-0.0	-0.00	-0.00
1-19-71	153	85	11339	2491	109.27	6.27	3.07	2.6	83	4.0	70	7.75	-0.0	-0.00	-0.00
1-18-71	154	81	11325	2488	109.27	6.27	3.07	3.2	40	2.6	93	7.78	-0.0	-0.00	-0.00
1-18-71	154	82	11437	2495	109.27	6.27	3.07	1.4	93	1.4	300	7.76	-0.0	-0.00	-0.00
1-19-71	154	83	11315	2491	109.27	6.27	3.07	1.6	320	3.6	50	7.75	-0.0	-0.00	-0.00
1-19-71	154	84	11356	2484	109.27	6.27	3.07	4.2	210	1.0	200	7.75	-0.0	-0.00	-0.00
1-19-71	154	85	11344	2489	109.27	6.27	3.07	2.2	290	4.4	200	7.75	-0.0	-0.00	-0.00
1-18-71	155	81	11313	2491	109.27	6.27	3.07	6.0	150	3.4	340	7.75	-0.0	-0.00	-0.00
1-18-71	155	82	11313	2491	109.27	6.27	3.07	2.0	150	4.6	170	7.76	-0.0	-0.00	-0.00
1-18-71	155	83	11324	2491	109.27	6.27	3.07	4.4	110	5.4	180	7.75	-0.0	-0.00	-0.00
1-18-71	155	84	11373	2495	109.27	6.27	3.07	4.2	243	4.0	270	7.75	-0.0	-0.00	-0.00
1-18-71	155	85	11436	2491	109.27	6.27	3.07	2.6	70	4.2	150	7.76	-0.0	-0.00	-0.00
1-18-71	156	81	11349	2499	109.27	6.27	3.07	5.0	260	4.0	210	7.76	-0.0	-0.00	-0.00
1-18-71	156	82	11344	2493	109.27	6.27	3.07	1.4	240	5.6	330	7.74	-0.0	-0.00	-0.00
1-19-71	156	83	11319	2494	109.27	6.27	3.07	1.6	280	7.8	350	7.78	-0.0	-0.00	-0.00
1-19-71	156	84	11321	2484	109.27	6.27	3.07	2.4	340	5.0	270	7.78	-0.0	-0.00	-0.00
1-18-71	156	85	11333	2484	109.27	6.27	3.07	2.6	200	7.2	210	7.78	-0.0	-0.00	-0.00
1-18-71	157	81	11335	2455	109.27	6.27	3.07	4.4	280	1.2	290	7.78	-0.0	-0.00	-0.00
1-18-71	157	82	11364	2491	109.27	6.27	3.07	3.4	310	3.3	310	7.76	-0.0	-0.00	-0.00
1-18-71	157	83	11342	2493	109.27	6.27	3.07	3.4	310	1.0	240	7.74	-0.0	-0.00	-0.00
1-19-71	157	84	11326	2474	109.27	6.27	3.07	4.0	230	1.6	160	7.74	-0.0	-0.00	-0.00
1-19-71	157	85	11314	2472	109.27	6.27	3.07	4.0	130	2.4	140	7.76	-0.0	-0.00	-0.00
1-19-71	158	81	11277	2477	109.27	6.27	3.07	1.6	140	4.4	170	7.74	-0.0	-0.00	-0.00
1-19-71	158	82	11311	2482	109.27	6.27	3.07	4.2	100	3.3	190	7.76	-0.0	-0.00	-0.00
1-18-71	158	83	11339	2486	109.27	6.27	3.07	3.6	140	2.5	150	7.78	-0.0	-0.00	-0.00
1-19-71	158	84	11357	2489	109.27	6.27	3.07	3.4	70	1.2	240	7.72	-0.0	-0.00	-0.00
1-18-71	159	85	11256	2441	109.27	6.27	3.07	3.6	270	3.2	360	7.74	-0.0	-0.00	-0.00
1-19-71	159	81	11341	2431	109.27	6.27	3.07	3.6	140	1.6	190	7.74	-0.0	-0.00	-0.00
1-19-71	159	82	11244	2432	109.27	6.27	3.07	3.4	140	4.0	30	7.72	-0.0	-0.00	-0.00
1-19-71	159	83	11342	2435	109.27	6.27	3.07	2.4	200	4.4	370	7.76	-0.0	-0.00	-0.00
1-19-71	159	84	11377	2479	109.27	6.27	3.07	2.2	170	3.2	240	7.76	-0.0	-0.00	-0.00
1-18-71	159	85	11304	2435	109.27	6.27	3.07	2.0	310	1.6	160	7.74	-0.0	-0.00	-0.00
1-18-71	160	81	11354	2437	109.27	6.27	3.07	1.0	60	4.4	50	7.78	-0.0	-0.00	-0.00
1-19-71	160	82	11355	2446	109.27	6.27	3.07	2.0	100	3.4	300	7.76	-0.0	-0.00	-0.00
1-18-71	160	83	11241	2434	109.27	6.27	3.07	2.0	240	4.0	340	7.78	-0.0	-0.00	-0.00
1-19-71	160	84	11325	2490	109.27	6.27	3.07	3.0	290	1.2	230	7.74	-0.0	-0.00	-0.00
1-19-71	160	85	11330	2490	109.27	6.27	3.07	4.4	80	3.0	210	7.74	-0.0	-0.00	-0.00
1-18-71	161	81	11327	2450	109.27	6.27	3.07	5.2	300	2.2	240	7.75	-0.0	-0.00	-0.00
1-18-71	161	82	11274	2445	109.27	6.27	3.07	2.0	210	0.4	140	7.76	-0.0	-0.00	-0.00
1-19-71	161	83	11279	2484	109.27	6.27	3.07	0.0	240	0.4	180	7.74	-0.0	-0.00	-0.00
1-19-71	161	84	11231	2436	109.27	6.27	3.07	1.2	70	3.2	40	7.74	-0.0	-0.00	-0.00
1-19-71	161	85	11355	2434	109.27	6.27	3.07	1.6	140	1.1	30	7.75	-0.0	-0.00	-0.00

DATE TEST#	LOT NO	PROJ NO	RANGE (YDS)	CRIFT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC DENSITY (PERCENT)	RANGE MINO (KTS)	CRUSS WIND (KTS)	INERT LOADFO				EMPTY			
									RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)
									GRAVITY (TN)	GRAVITY (TN)	GRAVITY (TN)	GRAVITY (TN)	GRAVITY (TN)	GRAVITY (TN)	GRAVITY (TN)	GRAVITY (TN)
1-18-71	162	81	11415	161	2495	109.27	6.27	3.07	2.0	170	3.2	140	7.76	-0.0	-0.00	-0.00
1-19-71	162	82	11238	162	2496	109.27	6.27	3.07	2.0	150	3.2	220	7.76	-0.0	-0.00	-0.00
1-19-71	162	83	11238	163	2496	109.27	6.27	3.07	2.0	160	3.2	240	7.76	-0.0	-0.00	-0.00
1-18-71	162	84	11232	123	2495	109.27	6.27	3.07	1.8	230	6.0	150	7.76	-0.0	-0.00	-0.00
1-18-71	162	85	11341	157	2496	109.27	6.27	3.07	4.4	343	2.0	140	7.76	-0.0	-0.00	-0.00
1-18-71	163	91	11346	151	2497	109.27	6.27	3.07	3.0	280	1.6	310	7.76	-0.0	-0.00	-0.00
1-18-71	163	92	11232	159	2482	109.27	6.27	3.07	2.2	270	4.2	220	7.76	-0.0	-0.00	-0.00
1-19-71	163	87	11254	150	2444	109.27	6.27	3.07	1.2	260	4.4	270	7.76	-0.0	-0.00	-0.00
1-19-71	163	87	11348	161	2499	109.27	6.27	3.07	3.0	170	4.4	210	7.76	-0.0	-0.00	-0.00
1-18-71	163	85	11250	160	2484	109.27	6.27	3.07	3.2	180	4.8	270	7.76	-0.0	-0.00	-0.00
1-18-71	164	81	11271	156	2480	109.27	6.27	3.07	1.6	160	5.8	120	7.76	-0.0	-0.00	-0.00
1-18-71	164	82	11347	153	2449	109.27	6.27	3.07	3.6	280	4.2	240	7.76	-0.0	-0.00	-0.00
1-18-71	164	83	11295	151	2491	109.27	6.27	3.07	3.0	300	6.6	190	7.76	-0.0	-0.00	-0.00
1-18-71	164	84	11272	129	2496	109.27	6.27	3.07	3.2	360	3.0	330	7.76	-0.0	-0.00	-0.00
1-18-71	164	85	11343	155	2492	109.27	6.27	3.07	6.8	740	5.8	340	7.76	-0.0	-0.00	-0.00
1-13-71	165	91	11273	154	2479	109.27	6.27	3.07	4.4	330	5.2	330	7.76	-0.0	-0.00	-0.00
1-14-71	165	92	11243	141	2481	109.27	6.27	3.07	4.3	230	3.6	160	7.76	-0.0	-0.00	-0.00
1-14-71	165	93	11315	144	2493	109.27	6.27	3.07	4.2	300	9.0	300	7.76	-0.0	-0.00	-0.00
1-18-71	165	84	11418	155	2442	109.27	6.27	3.07	2.2	260	1.4	100	7.76	-0.0	-0.00	-0.00
1-18-71	165	85	11246	155	2476	109.27	6.27	3.07	6.0	200	1.2	140	7.76	-0.0	-0.00	-0.00
1-18-71	166	81	11895	191	2500	102.63	20.89	38.16	3.4	80	9.8	60	7.76	-0.0	-0.00	-0.00
1-26-71	166	82	11949	181	2506	102.63	20.89	38.16	1.8	240	4.2	270	7.76	-0.0	-0.00	-0.00
1-26-71	166	83	11939	176	2506	102.63	20.89	38.16	1.6	210	5.6	70	7.76	-0.0	-0.00	-0.00
1-26-71	166	84	11853	193	2494	102.63	20.89	38.16	3.2	130	2.6	115	7.76	-0.0	-0.00	-0.00
1-26-71	167	81	12042	173	2504	102.63	20.89	38.16	1.6	320	5.2	290	7.76	-0.0	-0.00	-0.00
1-26-71	167	82	11936	164	2497	102.63	20.89	38.16	4.2	135	6.2	210	7.76	-0.0	-0.00	-0.00
1-26-71	167	83	11942	178	2505	102.63	20.89	38.16	1.2	100	6.4	175	7.76	-0.0	-0.00	-0.00
1-26-71	167	84	11945	193	2519	102.63	20.89	38.16	1.2	230	6.0	245	7.76	-0.0	-0.00	-0.00
1-26-71	168	81	11942	174	2492	102.63	20.89	38.16	1.0	320	1.6	245	7.76	-0.0	-0.00	-0.00
1-26-71	168	82	11939	176	2501	102.63	20.89	38.16	4.0	160	3.3	125	7.76	-0.0	-0.00	-0.00
1-26-71	168	83	12047	193	2506	102.63	20.89	38.16	2.4	190	3.8	305	7.76	-0.0	-0.00	-0.00
1-26-71	168	84	11944	174	2437	102.63	20.89	38.16	3.6	190	2.6	50	7.76	-0.0	-0.00	-0.00
1-26-71	168	85	11944	191	2437	102.63	20.89	38.16	1.4	230	4.8	120	7.76	-0.0	-0.00	-0.00
1-26-71	169	81	12033	163	2504	102.63	20.89	38.16	2.4	160	5.4	115	7.76	-0.0	-0.00	-0.00
1-26-71	169	82	11934	172	2502	102.63	20.89	38.16	1.6	220	5.8	140	7.76	-0.0	-0.00	-0.00
1-26-71	169	83	11877	177	2491	102.63	20.89	38.16	3.4	160	5.0	160	7.76	-0.0	-0.00	-0.00
1-26-71	169	84	11873	171	2496	102.63	20.89	38.16	2.2	280	3.2	50	7.76	-0.0	-0.00	-0.00
1-26-71	169	91	11891	194	2504	102.63	20.89	38.16	4.8	190	3.6	110	7.76	-0.0	-0.00	-0.00
1-26-71	170	91	11970	169	2516	102.63	20.89	38.16	4.0	140	5.0	190	7.76	-0.0	-0.00	-0.00
1-26-71	170	92	11953	175	2512	102.63	20.89	38.16	1.4	220	4.8	190	7.76	-0.0	-0.00	-0.00
1-26-71	170	93	11752	131	2460	102.63	20.89	38.16	2.0	260	4.8	10	7.76	-0.0	-0.00	-0.00
1-26-71	170	84	11873	149	2497	102.63	20.89	38.16	2.6	130	4.2	150	7.76	-0.0	-0.00	-0.00
1-26-71	170	85	11893	165	2433	102.63	20.89	38.16	1.0	130	9.0	250	7.76	-0.0	-0.00	-0.00
1-26-71	171	81	11894	173	2443	102.63	20.89	38.16	4.2	290	5.6	200	7.76	-0.0	-0.00	-0.00

DATE TESTED	LOT	PROJ	RANGE (YDS)	DRIFT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC DENSITY (PERCENT)	WIND (KTS)	CROSS WIND (KTS)	INERT LOADS				EMPTY			
									RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	CENTER OF GRAVITY (IN)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ)	LEFT PLANE DYNAMIC BALANCE (IN-OZ)	CENTER OF GRAVITY (IN)
1-20-71	171	32	11916	-162	2497	102.68	20.43	-34.16	3.4	320	2.3	160	7.72	-0.0	-0.0	-0.00
1-26-71	171	83	11056	-165	2499	102.68	20.43	-34.16	2.0	310	3.4	330	7.79	-0.0	-0.0	-0.00
1-26-71	171	84	11973	-167	2496	102.68	20.43	-34.16	2.4	300	5.4	290	7.78	-0.0	-0.0	-0.00
1-26-71	171	85	12143	-173	2512	102.68	20.43	-34.16	8	270	5.4	140	7.75	-0.0	-0.0	-0.00
1-26-71	172	81	12449	-166	2520	102.68	20.43	-34.16	6	420	5.8	230	7.78	-0.0	-0.0	-0.00
1-26-71	172	82	12561	-171	2521	102.68	20.43	-34.16	1.4	110	2.0	60	7.78	-0.0	-0.0	-0.00
1-26-71	172	83	11732	-164	2544	102.68	20.43	-34.16	1.2	200	4.6	340	7.78	-0.0	-0.0	-0.00
1-26-71	172	84	12137	-176	2542	102.68	20.43	-34.16	4.0	320	1.5	130	7.74	-0.0	-0.0	-0.00
1-26-71	172	85	12103	-183	2522	102.68	20.43	-34.16	2.6	210	1.6	120	7.78	-0.0	-0.0	-0.00
1-26-71	173	81	12107	-185	2528	102.68	20.43	-34.16	3.0	160	6.8	160	7.76	-0.0	-0.0	-0.00
1-26-71	173	82	12154	-183	2522	102.68	20.43	-34.16	3.6	200	2.2	100	7.74	-0.0	-0.0	-0.00
1-26-71	173	83	12235	-177	2523	102.68	20.43	-34.16	3.4	310	6.2	170	7.78	-0.0	-0.0	-0.00
1-26-71	173	84	11939	-175	2514	102.68	20.43	-34.16	4.4	270	4.4	230	7.76	-0.0	-0.0	-0.00
1-26-71	173	85	12152	-176	2512	102.68	20.43	-34.16	2.4	310	3.2	200	7.74	-0.0	-0.0	-0.00
1-26-71	174	81	12138	-184	2511	102.68	20.43	-34.16	3.0	320	3.4	160	7.78	-0.0	-0.0	-0.00
1-26-71	174	82	11912	-187	2506	102.68	20.43	-34.16	3.2	300	2.3	230	7.78	-0.0	-0.0	-0.00
1-26-71	174	83	12127	-177	2510	102.68	20.43	-34.16	5.2	270	6.4	140	7.74	-0.0	-0.0	-0.00
1-26-71	174	84	11995	-194	2510	102.68	20.43	-34.16	8	320	5.4	330	7.78	-0.0	-0.0	-0.00
1-26-71	174	85	12049	-196	2513	102.68	20.43	-34.16	2.2	310	7.6	220	7.78	-0.0	-0.0	-0.00
1-26-71	175	31	12027	-200	2522	102.68	20.43	-34.16	2.0	220	2.6	210	7.76	-0.0	-0.0	-0.00
1-26-71	175	32	11937	-171	2517	102.68	20.43	-34.16	6.4	80	1.4	240	7.76	-0.0	-0.0	-0.00
1-26-71	175	63	11929	-177	2514	102.68	20.43	-34.16	2.0	300	2.6	90	7.74	-0.0	-0.0	-0.00
1-26-71	175	84	12143	-194	2518	102.68	20.43	-34.16	4.4	70	7.4	120	7.72	-0.0	-0.0	-0.00
1-26-71	175	95	11925	-177	2513	102.68	20.43	-34.16	2.4	100	3.6	160	7.74	-0.0	-0.0	-0.00
2-1-71	176	81	11857	-65	2524	112.11	11.33	-6.35	2.7	10	5.0	150	7.76	-0.0	-0.0	-0.00
2-1-71	176	92	11853	77	2509	112.11	11.33	-6.35	3.8	130	3.7	240	7.72	-0.0	-0.0	-0.00
2-1-71	176	93	11856	57	2509	112.11	11.33	-6.35	1.8	190	3.6	240	7.78	-0.0	-0.0	-0.00
2-1-71	176	94	11872	71	2522	112.11	11.33	-6.35	2.4	110	5.4	150	7.76	-0.0	-0.0	-0.00
2-1-71	177	81	11843	54	2515	112.11	11.33	-6.35	1.0	190	6.2	170	7.72	-0.0	-0.0	-0.00
2-1-71	177	82	11847	54	2512	112.11	11.33	-6.35	8	310	5.0	310	7.78	-0.0	-0.0	-0.00
2-1-71	177	93	11833	66	2511	112.11	11.33	-6.35	2.6	230	1.4	130	7.74	-0.0	-0.0	-0.00
2-1-71	177	94	11835	64	2517	112.11	11.33	-6.35	1.6	350	7.0	320	7.76	-0.0	-0.0	-0.00
2-1-71	177	95	11827	59	2504	112.11	11.33	-6.35	1.8	210	5.8	170	7.72	-0.0	-0.0	-0.00
2-1-71	178	81	11833	59	2505	112.11	11.33	-6.35	1.6	140	2.8	330	7.74	-0.0	-0.0	-0.00
2-1-71	178	82	11879	53	2515	112.11	11.33	-6.35	1.6	140	2.8	330	7.78	-0.0	-0.0	-0.00
2-1-71	178	83	11849	55	2516	112.11	11.33	-6.35	1.2	90	3.4	260	7.78	-0.0	-0.0	-0.00
2-1-71	178	84	11821	54	2513	112.11	11.33	-6.35	2.4	330	4.2	280	7.76	-0.0	-0.0	-0.00
2-1-71	178	85	11821	47	2506	112.11	11.33	-6.35	3.2	160	8.4	230	7.76	-0.0	-0.0	-0.00
2-1-71	179	81	11845	44	2509	112.11	11.33	-6.35	3.2	160	8.4	230	7.74	-0.0	-0.0	-0.00
2-1-71	179	82	11845	41	2511	112.11	11.33	-6.35	2.2	270	4.6	240	7.72	-0.0	-0.0	-0.00
2-1-71	179	83	11845	61	2511	112.11	11.33	-6.35	3.0	360	5.6	300	7.74	-0.0	-0.0	-0.00
2-1-71	179	84	11836	60	2502	112.11	11.33	-6.35	1.0	210	7.8	290	7.76	-0.0	-0.0	-0.00
2-1-71	180	85	11839	67	2505	112.11	11.33	-6.35	1.0	270	2.6	190	7.76	-0.0	-0.0	-0.00
2-1-71	180	82	11832	56	2506	112.11	11.33	-6.35	1.6	280	7.0	290	7.78	-0.0	-0.0	-0.00

DATE TESTED	LOT NO	PROJ NO	RANGE (YDS)	HEIGHT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC COEFFICIENT (PERCENT)	RANGE MIN	RANGE MAX	CROSS WIND (KTS)	INERT LOADED				EMPTY			
										RIGHT PLANE DYNAMIC BALANCE (IN-OZ) (DFG)	LEFT PLANE DYNAMIC BALANCE (IN-OZ) (DFG)	CENTER OF GRAVITY (IN)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ) (DFG)	LEFT PLANE DYNAMIC BALANCE (IN-OZ) (DFG)	CENTER OF GRAVITY (IN)		
2-1-71	180	33	11370	63	2510	112.11	11.39	-6.45	4.4	60	1.4	340	7.72	-0.0	-0.0	-0.00	
2-1-71	181	84	11233	58	2494	112.11	11.39	-6.05	1.6	300	4.2	60	7.74	-0.0	-0.0	-0.00	
2-1-71	181	95	11236	74	2438	112.11	11.39	-6.35	1.4	40	2.8	340	7.74	-0.0	-0.0	-0.00	
2-9-71	181	81	11633	113	2511	107.94	24.94	-10.30	4.0	70	6.8	100	7.76	-0.0	-0.0	-0.00	
2-9-71	181	82	11770	119	2507	107.94	24.94	-10.30	2.2	20	2.4	50	7.78	-0.0	-0.0	-0.00	
2-9-71	181	83	11610	116	2506	107.94	24.94	-10.30	5.2	120	6.0	70	7.76	-0.0	-0.0	-0.00	
2-9-71	181	84	11566	120	2503	107.94	24.94	-10.30	5.4	320	1.8	100	7.74	-0.0	-0.0	-0.00	
2-9-71	181	95	11846	114	2504	107.94	24.94	-10.30	2.2	50	2.0	250	7.77	-0.0	-0.0	-0.00	
2-9-71	182	81	11633	107	2510	107.94	24.94	-10.30	4.4	180	2.6	100	7.79	-0.0	-0.0	-0.00	
2-9-71	182	82	11573	113	2506	107.94	24.94	-10.30	1.2	280	8.6	130	7.74	-0.0	-0.0	-0.00	
2-9-71	182	83	11542	110	2507	107.94	24.94	-10.30	3.6	50	1.0	260	7.78	-0.0	-0.0	-0.00	
2-9-71	182	84	11545	104	2495	107.94	24.94	-10.30	3.8	150	11.2	190	7.74	-0.0	-0.0	-0.00	
2-9-71	182	95	11873	139	2532	107.94	24.94	-10.30	1.6	210	6.0	220	7.78	-0.0	-0.0	-0.00	
2-9-71	183	91	11649	109	2534	107.94	24.94	-10.30	2.8	160	5.2	340	7.74	-0.0	-0.0	-0.00	
2-9-71	183	82	11578	98	2513	107.94	24.94	-10.30	4.0	10	3.0	90	7.74	-0.0	-0.0	-0.00	
2-9-71	183	83	11544	106	2506	107.94	24.94	-10.30	2.2	110	1.4	140	7.78	-0.0	-0.0	-0.00	
2-9-71	183	84	11523	121	2521	107.94	24.94	-10.30	2.0	200	3.6	760	7.74	-0.0	-0.0	-0.00	
2-9-71	183	85	11571	103	2523	107.94	24.94	-10.30	1.4	160	7.8	110	7.78	-0.0	-0.0	-0.00	
2-9-71	184	91	11644	105	2537	107.94	24.94	-10.30	4.4	300	2.6	220	7.76	-0.0	-0.0	-0.00	
2-9-71	184	92	11652	97	2522	107.94	24.94	-10.30	1.4	310	5.4	20	7.74	-0.0	-0.0	-0.00	
2-9-71	184	93	11612	94	2511	107.94	24.94	-10.30	6.8	140	6.8	180	7.78	-0.0	-0.0	-0.00	
2-9-71	184	94	11633	94	2526	107.94	24.94	-10.30	3.4	160	2.0	140	7.72	-0.0	-0.0	-0.00	
2-9-71	184	85	11718	91	2556	107.94	24.94	-10.30	4.0	120	2.6	350	7.78	-0.0	-0.0	-0.00	
2-9-71	185	81	11506	86	2513	107.94	24.94	-10.30	2.6	340	4.8	250	7.74	-0.0	-0.0	-0.00	
2-9-71	185	82	11837	91	2563	107.94	24.94	-10.30	1.4	350	2.4	330	7.74	-0.0	-0.0	-0.00	
2-9-71	185	83	11542	98	2498	107.94	24.94	-10.30	6.2	230	5.8	190	7.78	-0.0	-0.0	-0.00	
2-9-71	185	84	11773	82	2559	107.94	24.94	-10.30	2.0	10	4.2	160	7.78	-0.0	-0.0	-0.00	
2-9-71	185	85	11649	88	2553	107.94	24.94	-10.30	1.8	180	5.6	210	7.76	-0.0	-0.0	-0.00	
2-9-71	186	31	11645	72	2527	107.94	24.94	-10.30	3.2	180	5.0	200	7.76	-0.0	-0.0	-0.00	
2-9-71	186	82	11534	84	2528	107.94	24.94	-10.30	2.5	40	1.4	150	7.74	-0.0	-0.0	-0.00	
2-9-71	186	83	11579	67	2530	107.94	24.94	-10.30	3.2	20	3.6	250	7.76	-0.0	-0.0	-0.00	
2-9-71	186	84	11555	69	2526	107.94	24.94	-10.30	1.0	90	4.2	110	7.78	-0.0	-0.0	-0.00	
2-9-71	186	85	11597	75	2530	107.94	24.94	-10.30	8	170	1.6	50	7.78	-0.0	-0.0	-0.00	
2-9-71	187	91	11613	84	2528	107.94	24.94	-10.30	2.0	110	4.8	90	7.78	-0.0	-0.0	-0.00	
2-9-71	187	82	11622	84	2534	107.94	24.94	-10.30	3.2	110	1.8	70	7.74	-0.0	-0.0	-0.00	
2-9-71	187	83	11548	95	2621	107.94	24.94	-10.30	5.4	180	8.6	200	7.74	-0.0	-0.0	-0.00	
2-9-71	187	84	11608	86	2576	107.94	24.94	-10.30	1.0	210	2.6	340	7.74	-0.0	-0.0	-0.00	
2-9-71	187	85	11542	85	2534	107.94	24.94	-10.30	1.2	320	5.4	20	7.74	-0.0	-0.0	-0.00	
2-9-71	188	91	11649	86	2527	107.94	24.94	-10.30	4.0	20	2.0	100	7.74	-0.0	-0.0	-0.00	
2-9-71	188	82	11545	74	2521	107.94	24.94	-10.30	3.0	140	4.2	170	7.74	-0.0	-0.0	-0.00	
2-9-71	188	83	11507	95	2527	107.94	24.94	-10.30	4.4	32	5.6	90	7.74	-0.0	-0.0	-0.00	
2-9-71	188	84	11643	92	2529	107.94	24.94	-10.30	4.0	340	5.2	230	7.76	-0.0	-0.0	-0.00	
2-9-71	188	85	11618	94	2530	107.94	24.94	-10.30	2.0	100	5.2	130	7.76	-0.0	-0.0	-0.00	
2-9-71	189	81	11643	100	2526	107.94	24.94	-10.30	3.4	190	2.0	140	7.74	-0.0	-0.0	-0.00	
2-9-71	189	82	11542	84	2517	107.94	24.94	-10.30	2.4	230	2.4	200	7.74	-0.0	-0.0	-0.00	
2-9-71	189	83	11541	97	2523	107.94	24.94	-10.30	2.4	270	2.4	70	7.78	-0.0	-0.0	-0.00	

DATE TESTED	LOT NO	PROJ NO	RANGE (YDS)	DRIFT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC DENSITY (PERCENT)	WIND (KTS)	WIND (KTS)	CROSS WIND (KTS)	INERT LOADED				EMPTY			
										RIGHT PLANE DYNAMIC BALANCE (IN-OZ) (DEG)	LEFT PLANE DYNAMIC BALANCE (IN-OZ) (DEG)	CENTER OF GRAVITY (IN)	RIGHT PLANE DYNAMIC BALANCE (IN-OZ) (DEG)	LEFT PLANE DYNAMIC BALANCE (IN-OZ) (DEG)	CENTER OF GRAVITY (IN)	CENTER OF GRAVITY (IN)	
										(IN-OZ) (DEG)	(IN-OZ) (DEG)	(IN)	(IN-OZ) (DEG)	(IN-OZ) (DEG)	(IN)		
2-9-71	189	94	11537	86	2524	107.98	24.99	24.99	-10.00	7.8	20	60	7.76	-0.0	7.76	-0.00	
2-9-71	189	85	11516	89	2517	107.98	24.99	24.99	-10.00	2.9	240	240	7.74	-0.0	7.74	-0.00	
2-9-71	190	81	11517	77	2522	107.98	24.99	24.99	-10.00	2.2	210	40	7.72	-0.0	7.72	-0.00	
2-9-71	190	92	11533	92	2526	107.98	24.99	24.99	-10.00	5.4	110	100	7.74	-0.0	7.74	-0.00	
2-9-71	190	83	11532	74	2522	107.98	24.99	24.99	-10.00	2.2	170	5	7.74	-0.0	7.74	-0.00	
2-9-71	190	94	11516	71	2513	107.98	24.99	24.99	-10.00	2.6	220	370	7.74	-0.0	7.74	-0.00	
2-9-71	190	85	11574	77	2512	107.98	24.99	24.99	-10.00	1.4	60	2	7.75	-0.0	7.75	-0.00	
2-24-71	191	91	11847	102	2542	104.99	17.64	17.64	-2.31	2.0	260	240	7.74	-0.0	7.74	-0.00	
2-24-71	191	92	11834	104	2541	104.99	17.64	17.64	-2.31	2.4	150	6.2	7.75	-0.0	7.75	-0.00	
2-24-71	191	83	11836	119	2536	104.99	17.64	17.64	-2.31	2.0	170	160	7.75	-0.0	7.75	-0.00	
2-24-71	191	94	11733	119	2547	104.99	17.64	17.64	-2.31	3.8	240	9.2	7.78	-0.0	7.78	-0.00	
2-24-71	191	85	11831	114	2541	104.99	17.64	17.64	-2.31	3.2	110	6.4	7.75	-0.0	7.75	-0.00	
2-24-71	192	91	11846	114	2537	104.99	17.64	17.64	-2.31	4.2	200	2.0	7.71	-0.0	7.71	-0.00	
2-24-71	192	82	11813	113	2539	104.99	17.64	17.64	-2.31	4.0	130	2.0	7.82	-0.0	7.82	-0.00	
2-24-71	192	83	11704	95	2531	104.99	17.64	17.64	-2.31	2.2	30	3.4	7.75	-0.0	7.75	-0.00	
2-24-71	192	84	11758	105	2544	104.99	17.64	17.64	-2.31	2.2	60	3.6	7.74	-0.0	7.74	-0.00	
2-24-71	192	35	11712	109	2517	104.99	17.64	17.64	-2.31	6.4	100	6.8	7.76	-0.0	7.76	-0.00	
2-24-71	193	81	11892	106	2552	104.99	17.64	17.64	-2.31	1.4	350	5.4	7.79	-0.0	7.79	-0.00	
2-24-71	193	82	11853	129	2553	104.99	17.64	17.64	-2.31	8	120	2.6	7.80	-0.0	7.80	-0.00	
2-24-71	193	83	11856	112	2541	104.99	17.64	17.64	-2.31	7.2	170	7.0	7.79	-0.0	7.79	-0.00	
2-24-71	193	84	11764	119	2541	104.99	17.64	17.64	-2.31	4.2	360	2.6	7.80	-0.0	7.80	-0.00	
2-24-71	194	35	11862	97	2545	104.99	17.64	17.64	-2.31	9.4	100	7.0	7.84	-0.0	7.84	-0.00	
2-24-71	194	81	11719	113	2530	104.99	17.64	17.64	-2.31	3.0	200	2.0	7.69	-0.0	7.69	-0.00	
2-24-71	194	82	11812	117	2535	104.99	17.64	17.64	-2.31	2.0	310	5.2	7.72	-0.0	7.72	-0.00	
2-24-71	194	83	11843	93	2531	104.99	17.64	17.64	-2.31	2.2	160	5.8	7.79	-0.0	7.79	-0.00	
2-24-71	194	94	11732	105	2540	104.99	17.64	17.64	-2.31	5.0	170	2.6	7.80	-0.0	7.80	-0.00	
2-24-71	194	35	11810	99	2546	104.99	17.64	17.64	-2.31	5.4	270	4.8	7.75	-0.0	7.75	-0.00	
2-24-71	195	81	11671	103	2524	104.99	17.64	17.64	-2.31	1.0	50	5.4	7.78	-0.0	7.78	-0.00	
2-24-71	195	82	11879	99	2552	104.99	17.64	17.64	-2.31	3.4	45	2.0	7.76	-0.0	7.76	-0.00	
2-24-71	195	83	11777	88	2548	104.99	17.64	17.64	-2.31	2.4	290	2.0	7.76	-0.0	7.76	-0.00	
2-24-71	195	84	11794	104	2574	104.99	17.64	17.64	-2.31	1.6	190	4.4	7.74	-0.0	7.74	-0.00	
2-24-71	195	85	11820	105	2534	104.99	17.64	17.64	-2.31	5.2	30	5.0	7.74	-0.0	7.74	-0.00	
2-24-71	196	81	11704	107	2540	104.99	17.64	17.64	-2.31	4.0	120	6.6	7.80	-0.0	7.80	-0.00	
2-24-71	196	82	11740	111	2535	104.99	17.64	17.64	-2.31	2.4	20	3.0	7.80	-0.0	7.80	-0.00	
2-24-71	196	83	11707	105	2545	104.99	17.64	17.64	-2.31	4.4	140	7.6	7.81	-0.0	7.81	-0.00	
2-24-71	196	84	11659	94	2544	104.99	17.64	17.64	-2.31	6.0	110	4.0	7.79	-0.0	7.79	-0.00	
2-24-71	196	85	11735	117	2535	104.99	17.64	17.64	-2.31	2.4	230	5.0	7.80	-0.0	7.80	-0.00	
2-24-71	197	81	11739	103	2546	104.99	17.64	17.64	-2.31	1.4	230	5.6	7.76	-0.0	7.76	-0.00	
2-24-71	197	82	11759	104	2536	104.99	17.64	17.64	-2.31	2.0	200	6.0	7.78	-0.0	7.78	-0.00	
2-24-71	197	83	11917	111	2532	104.99	17.64	17.64	-2.31	3.4	290	2.8	7.82	-0.0	7.82	-0.00	
2-24-71	197	84	11756	97	2531	104.99	17.64	17.64	-2.31	7.0	170	2.0	7.80	-0.0	7.80	-0.00	
2-24-71	197	85	11651	123	2518	104.99	17.64	17.64	-2.31	7.0	170	2.0	7.80	-0.0	7.80	-0.00	

APPENDIX B

Projectile Inspection Data

GUN PROJECTILE INSPECTION DATA

5/38 MK 44-0 LCT 62 PROJECTILE R1

INSPECTION DATE 09/29/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIR	CIA
1.90	0.0121	0.0297	0.03207	2.971	-0.0002	0.0001	0.00022	4.984
2.90	0.0101	0.0192	0.02169	3.383	-0.0039	-0.0047	0.00611	5.122
3.90	0.0077	0.0209	0.02227	3.501	-0.0034	-0.0030	0.00453	5.120
4.90	0.0057	0.0215	0.02224	3.614	-0.0009	-0.0	0.00090	4.982
5.90	0.0072	0.0198	0.02107	3.732	0.0020	0.0006	0.00209	4.950
6.90	0.0090	0.0200	0.02193	3.846	-0.0012	-0.0011	0.00163	4.957
7.90	0.0099	0.0201	0.02193	3.929	-0.0009	-0.0011	0.00142	4.959
8.90	0.0078	0.0181	0.01971	3.926	-0.0012	-0.0005	0.00130	4.960
9.90	0.0090	0.0164	0.01825	3.928	-0.0008	-0.0003	0.00095	4.962

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
5.75	0.0109	0.0143	0.01798	3.919	0.0014	0.0013	0.00191	4.984
4.75	0.0122	0.0123	0.01732	3.865	0.0009	0.0006	0.00109	4.880
3.75	0.0104	0.0069	0.01249	3.8	0.0022	0.0006	0.00228	4.704
3.25	0.0030	0.0034	0.00869	3.5	0.0013	0.0017	0.00214	4.580
2.75	0.0076	-0.0	0.00760	3.434	0.0015	0.0010	0.00180	4.439
2.25	0.0080	0.0001	0.00800	3.258	0.0018	0.0014	0.00228	4.274
1.75	0.0059	-0.0034	0.00672	2.878	0.0026	0.0011	0.00292	4.052
1.25	0.0147	0.0130	0.01962	2.581	0.0028	0.0006	0.00286	3.890

Z3	X-ACT	Y-ACT	TIP
1.00	-0.0	0.0054	0.00540
7.00	0.0025	0.0047	0.00532

BASE THICKNESS (IN) 1.536

PROJECTILE LENGTH (IN) 16.588

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 65-0 LCT 62 PROJECTILE P2

INSPECTION DATE 9/29/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0165	0.0082	0.01843	3.117	0.0018	-0.0011	0.00211	4.992
2.90	0.0194	0.0029	0.01952	3.267	0.0004	0.0001	0.00041	5.123
3.90	0.0206	0.0094	0.02264	3.484	0.0027	-0.0001	0.00270	5.124
4.90	0.0196	0.0094	0.02174	3.603	-0.0014	-0.0001	0.00140	4.983
5.90	0.0202	0.0127	0.02285	3.717	0.0001	0.0002	0.00022	4.940
6.90	0.0209	0.0115	0.02385	3.834	0.0006	-0.0001	0.00061	4.959
7.90	0.0201	0.0135	0.02427	3.920	-0.0005	0.0	0.00050	4.957
8.90	0.0175	0.0145	0.02273	3.921	-0.0021	0.0006	0.00218	4.954
9.90	0.0171	0.0141	0.02216	3.920	-0.0014	0.0007	0.00157	4.955

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0195	0.0139	0.02195	3.920	-0.0011	0.0004	0.00117	4.982
4.75	0.0151	0.0129	0.01986	3.888	-0.0010	0.0012	0.00156	4.832
3.75	0.0069	0.0123	0.01410	3.728	-0.0023	0.0013	0.00264	4.712
3.25	0.0031	0.0134	0.01175	3.620	-0.0023	0.0013	0.00304	4.530
2.75	0.0010	0.0119	0.01194	3.486	-0.0031	0.0018	0.00358	4.449
2.25	-0.0013	0.0094	0.00940	3.307	-0.0026	0.0015	0.00300	4.286
1.75	-0.0071	0.0075	0.01063	2.953	-0.0031	0.0018	0.00359	4.101
1.25	-0.0072	0.0075	0.01040	2.832	-0.0028	0.0022	0.00356	3.901

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0012	-0.0017	0.00708
7.00	-0.0113	-0.0206	0.02250

BASE THICKNESS (IN) 1.435

PROJECTILE LENGTH (IN) 16.483

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/28 MK 56-0 LOT 62 PROJECTILE R3

INSPECTION DATE 09/28/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0344	0.0164	0.03811	3.008	-0.0002	-0.0019	0.00191	4.984
2.90	-0.0239	0.0073	0.02499	3.374	0.0010	-0.0	0.00100	5.119
3.90	-0.0282	0.0103	0.03002	3.489	0.0012	-0.0004	0.00126	5.123
4.90	-0.0275	0.0117	0.02989	3.606	-0.0012	0.0004	0.00126	4.983
5.90	-0.0259	0.0120	0.02854	3.722	0.0006	0.0018	0.00190	4.965
6.90	-0.0225	0.0124	0.02569	3.839	0.0010	0.0014	0.00172	4.963
7.90	-0.0190	0.0122	0.02258	3.925	-0.0004	0.0011	0.00117	4.961
8.90	-0.0145	0.0122	0.01895	3.927	0.0003	0.0010	0.00104	4.963
9.90	-0.0132	0.0126	0.01825	3.929	-0.0012	0.0008	0.00144	4.964

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0085	0.0140	0.01638	3.933	-0.0019	0.0005	0.00196	4.987
4.75	-0.0012	0.0158	0.01585	3.886	-0.0004	0.0005	0.00064	4.890
3.75	0.0017	0.0165	0.01655	3.709	-0.0012	0.0013	0.00177	4.702
3.25	0.0045	0.0149	0.01556	3.596	-0.0017	0.0005	0.00177	4.570
2.75	0.0085	0.0150	0.01724	3.454	-0.0017	0.0010	0.00197	4.437
2.25	0.0123	0.0150	0.01940	3.219	-0.0009	0.0015	0.00175	4.272
1.75	0.0220	0.0168	0.02768	2.973	-0.0015	0.0011	0.00196	4.089
1.25	-0.0037	0.0119	0.01237	2.590	-0.0016	0.0007	0.00175	3.886

Z3	X-ACT	Y-ACT	TIR
1.00	0.0018	0.0059	0.00617
7.00	0.0014	0.0039	0.00414

BASE THICKNESS (IN) 1.491

PROJECTILE LENGTH (IN) 16.592

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 46-C 1CT 62 PROJECTILE R4

INSPECTION DATE 5/28/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0220	0.0144	0.02629	3.007	-0.0004	0.0005	0.00064	4.980
2.90	-0.0192	0.0090	0.02030	3.361	-0.0001	0.0016	0.00160	5.121
3.90	-0.0199	0.0108	0.02264	3.479	0.0	0.0022	0.00220	5.110
4.90	-0.0204	0.0116	0.02247	3.596	-0.0021	0.0012	0.00242	4.932
5.90	-0.0192	0.0103	0.02179	3.712	-0.0008	0.0001	0.00081	4.955
6.90	-0.0189	0.0091	0.02098	3.829	-0.0001	0.0011	0.00110	4.955
7.90	-0.0188	0.0072	0.02013	3.914	-0.0010	0.0013	0.00164	4.956
8.90	-0.0200	0.0070	0.02119	3.918	-0.0016	0.0018	0.00241	4.958
9.90	-0.0229	0.0060	0.02367	3.921	-0.0023	0.0015	0.00275	4.959

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0227	0.0063	0.02356	3.928	-0.0006	0.0022	0.00229	4.992
4.75	-0.0198	0.0074	0.02114	3.895	-0.0011	0.0027	0.00292	4.986
3.75	-0.0150	0.0055	0.01599	3.705	-0.0026	0.0030	0.00397	4.692
3.25	-0.0140	0.0039	0.01452	3.585	-0.0017	0.0030	0.00345	4.578
2.75	-0.0147	0.0053	0.01572	3.453	-0.0017	0.0035	0.00389	4.437
2.25	-0.0130	0.0066	0.01458	3.254	-0.0018	0.0039	0.00420	4.275
1.75	-0.0128	0.0032	0.01319	2.894	-0.0019	0.0030	0.00355	4.095
1.25	-0.0010	0.0018	0.00206	2.597	-0.0013	0.0035	0.00372	3.892

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0071	-0.0031	0.00775
7.00	-0.0036	-0.0050	0.00616

BASE THICKNESS (IN) 1.494

PROJECTILE LENGTH (IN) 16.533

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 64-0 LCT 62 PROJECTILE R5

INSPECTION DATE 5/28/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIP	DIA
1.90	0.0164	-0.0046	0.01703	3.020	-0.0002	-0.0012	0.00122	4.979
2.90	0.0073	-0.0041	0.00837	3.365	0.0016	0.0028	0.00322	5.124
3.90	0.0093	-0.0065	0.01135	3.483	0.0010	0.0021	0.00233	5.119
4.90	0.0079	-0.0065	0.01023	3.603	-0.0018	-0.0008	0.00197	4.981
5.90	0.0093	-0.0060	0.01107	3.718	-0.0001	-0.0010	0.00100	4.959
6.90	0.0077	-0.0033	0.00838	3.837	0.0010	-0.0014	0.00172	4.956
7.90	0.0022	-0.0021	0.00304	3.920	0.0	-0.0011	0.00110	4.955
8.90	0.0017	-0.0019	0.00255	3.924	-0.0014	0.0	0.00140	4.954
9.90	0.0014	-0.0001	0.00140	3.927	-0.0021	-0.0003	0.00212	4.955

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	-0.0010	0.0025	0.00269	3.927	-0.0019	-0.0001	0.00190	4.982
4.75	-0.0017	0.0003	0.00188	3.887	-0.0006	0.0001	0.00041	4.884
3.75	-0.0026	-0.0071	0.00756	3.688	-0.0020	0.0004	0.00204	4.699
3.25	-0.0023	-0.0126	0.01281	3.564	-0.0026	0.0	0.00260	4.579
2.75	-0.0008	-0.0145	0.01452	3.434	-0.0033	0.0006	0.00335	4.438
2.25	0.0036	-0.0154	0.01582	3.253	-0.0029	0.0009	0.00304	4.278
1.75	0.0054	-0.0148	0.01575	2.919	-0.0032	0.0015	0.00362	4.104
1.25	0.0064	-0.0125	0.01404	2.606	-0.0021	0.0013	0.00247	3.904

Z3	X-ACT	Y-ACT	TIR
1.00	0.0016	0.0061	0.00631
7.00	0.0044	-0.0089	0.00993

BASE THICKNESS (IN) 1.457

PROJECTILE LENGTH (IN) 16.521

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATA

5/38 MK 66-D LOT 63 PROJECTILE B1

INSPECTION DATE 9/16/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0090	0.0053	0.01044	2.928	0.0005	-0.0002	0.00054	4.981
2.90	0.0154	0.0008	0.01542	3.362	-0.0035	-0.0001	0.00350	5.126
3.90	0.0149	-0.0013	0.01496	3.479	-0.0035	0.0009	0.00361	5.126
4.90	0.0138	-0.0016	0.01389	3.596	-0.0017	0.0	0.00170	4.984
5.90	0.0116	-0.0053	0.01275	3.712	-0.0007	0.0008	0.00106	4.959
6.90	0.0138	-0.0066	0.01530	3.828	-0.0025	-0.0009	0.00266	4.958
7.90	0.0087	-0.0081	0.01189	3.917	-0.0015	0.0003	0.00153	4.959
8.90	0.0106	-0.0110	0.01528	3.922	-0.0015	0.0003	0.00153	4.955
9.90	0.0127	-0.0146	0.01935	3.932	-0.0023	-0.0009	0.00247	4.964

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0146	-0.0189	0.02380	3.937	-0.0009	0.0003	0.00095	4.982
4.75	0.0133	-0.0185	0.02278	3.897	-0.0006	-0.0007	0.00092	4.890
3.75	0.0104	-0.0020	0.01059	3.712	-0.0020	0.0002	0.00201	4.703
3.25	0.0091	-0.0002	0.00910	3.600	-0.0013	-0.0002	0.00132	4.582
2.75	0.0049	0.0048	0.00686	3.469	-0.0011	0.0004	0.00117	4.440
2.25	0.0016	0.0073	0.00747	3.303	-0.0012	0.0008	0.00144	4.277
1.75	0.0008	0.0142	0.01422	2.990	-0.0010	0.0001	0.00100	4.096
1.25	0.0007	0.0128	0.01282	2.646	0.0012	-0.0001	0.00120	3.894

Z3 X-ACT Y-ACT TIR

1.00	-0.0045	0.0024	0.00510
7.00	-0.0043	0.0018	0.00466

BASE THICKNESS (IN) 1.562

PROJECTILE LENGTH (IN) 16.653

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 46-0 LCT 63 PROJECTILE R2

INSPECTION DATE 09/23/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
1.00	0.0058	-0.0062	0.00849	3.002	0.0007	-0.0012	0.00139	4.921
2.90	0.0006	-0.0007	0.00872	3.367	0.0013	0.0004	0.00136	5.123
3.90	0.0009	-0.0002	0.00825	3.485	0.0008	0.0008	0.00113	5.121
4.90	0.0007	-0.0109	0.01092	3.603	0.0001	-0.0001	0.00014	4.982
5.90	0.0010	-0.0115	0.01154	3.714	-0.0002	0.0007	0.00073	4.952
6.90	0.0020	-0.0128	0.01296	3.832	0.0008	0.0013	0.00153	4.953
7.90	0.0029	-0.0130	0.01332	3.915	0.0003	0.0018	0.00182	4.951
8.90	0.0016	-0.0145	0.01459	3.919	0.0007	0.0016	0.00175	4.951
9.90	0.0024	-0.0162	0.01638	3.922	0.0002	0.0014	0.00141	4.953

72	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
5.75	0.0039	-0.0158	0.01627	3.926	0.0014	0.0006	0.00152	4.982
4.75	0.0024	-0.0130	0.01344	3.876	0.0009	0.0014	0.00166	4.884
3.75	0.0044	-0.0055	0.01047	3.726	0.0004	0.0016	0.00165	4.699
2.75	0.0022	-0.0105	0.01073	3.610	-0.0006	0.0016	0.00171	4.580
2.75	0.0001	-0.0112	0.01120	3.471	0.0008	0.0014	0.00161	4.437
2.25	-0.0004	-0.0090	0.00901	3.271	0.0004	0.0009	0.00098	4.277
1.75	0.0004	-0.0164	0.01640	2.917	-0.0003	0.0011	0.00114	4.096
1.25	0.0013	-0.0142	0.01426	2.593	0.0005	0.0021	0.00216	3.896

73	X-ACT	Y-ACT	TIR
1.00	-0.0010	0.0014	0.00236
7.00	-0.0084	0.0095	0.01268

BASE THICKNESS (IN) 1.472

PROJECTILE LENGTH (IN) 16.570

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 63 PROJECTILE R3

INSPECTION DATE 9/22/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0145	-0.0019	0.01660	2.918	-0.0005	-0.0014	0.00149	4.979
2.90	0.0147	-0.0097	0.01761	3.369	0.0033	-0.0002	0.00331	5.119
3.90	0.0164	-0.0095	0.01895	3.485	0.0021	-0.0010	0.00233	5.121
4.90	0.0153	-0.0101	0.01832	3.605	-0.0031	-0.0005	0.00314	4.979
5.90	0.0162	-0.0107	0.01950	3.722	-0.0021	-0.0007	0.00221	4.953
6.90	0.0146	-0.0094	0.01736	3.832	-0.0019	-0.0003	0.00192	4.957
7.90	0.0116	-0.0079	0.01403	3.925	-0.0006	0.0	0.00060	4.953
8.90	0.0052	-0.0081	0.00963	3.930	-0.0013	0.0006	0.00143	4.954
9.90	0.0022	-0.0092	0.00974	3.932	-0.0038	0.0	0.00380	4.962

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0022	-0.0090	0.00926	3.930	-0.0009	0.0003	0.00095	4.982
4.75	-0.0009	-0.0085	0.00855	3.884	-0.0026	-0.0001	0.00260	4.888
3.75	0.0004	-0.0161	0.01610	3.734	-0.0025	0.0007	0.00260	4.702
3.25	0.0009	-0.0182	0.01822	3.623	-0.0029	0.0008	0.00301	4.580
2.75	-0.0012	-0.0180	0.01804	3.489	-0.0042	0.0004	0.00422	4.478
2.25	-0.0013	-0.0127	0.01277	3.293	-0.0031	0.0009	0.00323	4.276
1.75	0.0020	-0.0067	0.00699	2.942	0.0	4.0009	4.00090	4.092
1.25	0.0059	-0.0020	0.00623	2.613	-0.0021	0.0011	0.00237	3.892

Z3 X-ACT Y-ACT TIR

1.00	-0.0135	0.0018	0.01352
7.00	-0.0123	0.0077	0.01451

BASE THICKNESS (IN) 1.575

PROJECTILE LENGTH (IN) 16.649

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 63 PROJECTILE R4

INSPECTION DATE 9/17/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.90	0.0153	-0.0041	0.01584	2.910	0.0014	0.0002	0.00141	4.987
2.90	0.0061	-0.0048	0.00776	3.354	0.0012	0.0018	0.00216	5.129
3.90	0.0080	-0.0049	0.00938	3.471	0.0022	0.0008	0.00234	5.124
4.90	0.0032	-0.0034	0.00880	3.580	0.0001	-0.0002	0.00022	4.984
5.90	0.0077	-0.0030	0.00824	3.704	0.0003	-0.0001	0.00032	4.960
6.90	0.0061	-0.0022	0.00648	3.821	0.0025	0.0001	0.00250	4.963
7.90	0.0034	-0.0009	0.00371	3.923	-0.0022	-0.0012	0.00251	4.957
8.90	0.0032	-0.0005	0.00324	3.926	-0.0021	-0.0014	0.00252	4.962
9.90	0.0048	0.0006	0.00484	3.935	-0.0013	-0.0022	0.00255	4.962

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	0.0030	0.0014	0.00414	3.938	-0.0011	-0.0025	0.00273	4.935
4.75	0.0021	0.0003	0.00238	3.888	-0.0009	-0.0022	0.00234	4.888
3.75	-0.0041	-0.0036	0.00546	3.725	-0.0020	-0.0030	0.00361	4.899
3.25	-0.0076	-0.0011	0.00798	3.615	-0.0020	-0.0035	0.00403	4.877
2.75	-0.0098	0.0006	0.00982	3.478	0.0005	-0.0035	0.00354	4.435
2.25	-0.0126	-0.0010	0.01264	3.283	-0.0006	-0.0033	0.00235	4.270
1.75	-0.0134	-0.0027	0.01340	2.920	-0.0008	-0.0030	0.00310	4.080
1.25	-0.0042	-0.0053	0.00482	2.615	-0.0015	-0.0036	0.00390	3.888

Z3 X-ACT Y-ACT TIP

1.00	-0.0049	-0.0025	0.00550
7.00	-0.0153	0.0084	0.02113

BASE THICKNESS (IN) 1.560

PROJECTILE LENGTH (IN) 16.670

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK F6-O LOT 62 PROJECTILE #5

INSPECTION DATE 9/28/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.50	-0.0187	0.0050	0.01936	2.911	0.0012	0.0001	0.00120	4.984
2.50	-0.0124	0.0002	0.01240	3.347	0.0016	-0.0007	0.00175	5.125
3.50	-0.0129	0.0021	0.01307	3.465	0.0003	-0.0	0.00030	5.125
4.50	-0.0116	0.0019	0.01175	3.584	0.0017	0.0006	0.00180	4.985
5.50	-0.0090	0.0014	0.00914	3.697	-0.0009	-0.0001	0.00091	4.952
6.50	-0.0078	0.0015	0.00794	3.813	0.0001	0.0004	0.00041	4.951
7.50	-0.0047	-0.0	0.00470	3.916	-0.0003	-0.0003	0.00042	4.953
8.50	-0.0073	-0.0002	0.00730	3.917	0.0005	-0.0002	0.00054	4.953
9.50	-0.0022	-0.0014	0.00272	3.920	0.0006	-0.0005	0.00078	4.953

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0004	-0.0019	0.00194	3.925	0.0023	-0.0006	0.00238	4.982
4.75	0.0030	-0.0025	0.00391	3.892	0.0030	0.0001	0.00300	4.883
3.75	0.0029	-0.0010	0.00307	3.746	0.0007	-0.0009	0.00114	4.609
3.25	0.0027	-0.0024	0.00275	3.640	0.0019	-0.0	0.00190	4.578
2.75	0.0067	-0.0042	0.00791	3.511	0.0014	0.0004	0.00145	4.433
2.25	0.0110	-0.0045	0.01182	3.318	0.0018	-0.0008	0.00197	4.272
1.75	0.0122	-0.0010	0.01224	2.966	0.0026	-0.0002	0.00261	4.082
1.25	0.0098	-0.0055	0.01039	2.645	0.0031	-0.0	0.00310	3.901

Z3	X-ACT	Y-ACT	TIR
1.00	0.0028	0.0031	0.00412
7.00	0.0273	0.0049	0.02774

BASE THICKNESS (IN) 1.535

PROJECTILE LENGTH (IN) 16.607

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 64 PROJECTILE R1

INSPECTION DATE 09/14/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0039	-0.0023	0.00453	2.898	0.0049	0.0011	0.00502	4.783
2.90	0.0036	-0.0060	0.00700	3.359	0.0010	-0.0	0.00100	5.124
3.90	0.0000	-0.0051	0.00518	3.477	0.0008	0.0014	0.00161	5.124
4.90	-0.0035	-0.0042	0.00547	3.598	0.0006	0.0008	0.00100	4.985
5.90	-0.0010	-0.0044	0.00451	3.705	-0.0012	0.0009	0.00150	4.956
6.90	0.0027	-0.0038	0.00465	3.825	0.0006	0.0011	0.00125	4.959
7.90	0.0004	-0.0039	0.00392	3.917	0.0006	0.0020	0.00209	4.957
8.90	-0.0005	-0.0065	0.00652	3.923	-0.0012	0.0017	0.00208	4.960
9.90	-0.0017	-0.0045	0.00481	3.922	-0.0011	0.0011	0.00156	4.962

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0001	-0.0068	0.00680	3.924	-0.0006	0.0018	0.00190	4.981
4.75	-0.0002	-0.0055	0.00550	3.888	0.0006	0.0016	0.00171	4.884
3.75	0.0034	-0.0050	0.00605	3.742	-0.0013	0.0010	0.00164	4.696
3.25	0.0056	-0.0026	0.00617	3.632	-0.0024	0.0010	0.00260	4.574
2.75	0.0090	-0.0011	0.00907	3.496	-0.0026	0.0020	0.00328	4.423
2.25	0.0052	0.0004	0.00532	3.295	-0.0008	0.0020	0.00215	4.270
1.75	0.0012	0.0015	0.00192	2.951	-0.0026	0.0013	0.00291	4.080
1.25	0.0066	0.0026	0.00702	2.620	-0.0020	0.0019	0.00276	3.889

Z3	X-ACT	Y-ACT	TIP
1.00	-0.0062	0.0040	0.00746
7.00	-0.0169	0.0111	

Base thickness 1.569

Projectile Length 16.663

GUN PROJECTILE INSPECTION DATA

5/23 MK 66-0 LCT 64 PROJECTILE B2

INSPECTION DATE 09/21/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.50	-0.0031	0.0020	0.00369	2.977	0.0002	0.0003	0.00026	4.994
2.50	0.0011	0.0005	0.00121	3.265	0.0021	0.0002	0.00211	5.121
3.50	0.0005	0.0017	0.00177	3.480	0.0008	0.0008	0.00113	5.121
4.50	-0.0021	-0.0019	0.00277	3.600	-0.0007	0.0008	0.00106	4.992
5.50	-0.0008	-0.0001	0.00091	3.714	-0.0001	0.0014	0.00140	4.956
6.50	0.0006	-0.0023	0.00335	3.829	0.0001	0.0007	0.00071	4.956
7.50	-0.0002	-0.0021	0.00311	3.924	0.0007	0.0005	0.00086	4.957
8.50	-0.0019	-0.0037	0.00416	3.927	-0.0016	0.0002	0.00161	4.958
9.50	-0.0043	-0.0037	0.00567	3.933	-0.0014	-0.0005	0.00149	4.960

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0031	-0.0036	0.00475	3.935	0.0019	0.0011	0.00220	4.986
4.75	-0.0043	-0.0033	0.00542	3.886	-0.0005	0.0007	0.00114	4.887
3.75	-0.0025	-0.0045	0.00515	3.737	-0.0008	0.0012	0.00144	4.700
2.75	0.0017	-0.0040	0.00435	3.627	-0.0016	0.0010	0.00189	4.577
2.75	0.0030	-0.0030	0.00492	3.491	-0.0004	0.0014	0.00146	4.435
2.25	0.0059	-0.0046	0.00748	3.301	-0.0005	0.0004	0.00098	4.270
1.75	0.0082	-0.0039	0.00908	2.943	-0.0013	0.0005	0.00139	4.088
1.25	0.0032	-0.0023	0.00460	2.634	0.0	0.0011	0.00110	3.899

Z3	X-ACT	Y-ACT	TIR
1.00	0.0024	0.0004	0.00243
7.00	0.0075	-0.0043	0.00865

BASE THICKNESS (IN) 1.513

PROJECTILE LENGTH (IN) 16.664

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 46-0 LCT 64 PROJECTILE 83

INSPECTION DATE 09/22/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIP	DIA
1.90	0.0075	0.0165	0.01812	2.962	0.0012	0.0004	0.00126	4.981
2.90	0.0045	0.0036	0.00576	3.364	0.0004	0.0001	0.00041	5.171
3.90	0.0024	0.0060	0.01032	3.482	0.0001	-0.0003	0.00032	5.120
4.90	0.0069	0.0073	0.01004	3.597	-0.0006	0.0003	0.00067	4.982
5.90	0.0058	0.0075	0.00948	3.712	0.0001	0.0007	0.00071	4.953
6.90	0.0049	0.0082	0.00955	3.827	0.0024	0.0015	0.00283	4.954
7.90	0.0046	0.0085	0.00966	3.917	0.0010	0.0015	0.00180	4.952
8.90	0.0013	0.0103	0.01038	3.917	0.0010	0.0015	0.00180	4.952
9.90	0.0006	0.0123	0.01231	3.921	0.0008	0.0003	0.00085	4.958

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	-0.0029	0.0150	0.01528	3.928	0.0016	0.0014	0.00213	4.984
4.75	-0.0044	0.0150	0.01563	3.887	0.0018	0.0019	0.00262	4.890
3.75	-0.0020	0.0140	0.01414	3.691	0.0006	0.0011	0.00125	4.704
3.25	-0.0030	0.0089	0.00939	3.578	0.0015	0.0024	0.00283	4.581
2.75	-0.0028	0.0044	0.00522	3.445	0.0015	0.0015	0.00212	4.441
2.25	-0.0029	-0.0014	0.00322	3.270	0.0009	0.0015	0.00175	4.279
1.75	0.0016	-0.0075	0.00767	2.959	0.0013	0.0006	0.00143	4.097
1.25	0.0016	-0.0142	0.01429	2.624	0.0008	0.0011	0.00136	3.893

Z3	X-ACT	Y-ACT	TIR
1.00	0.0024	0.0038	0.00449
7.00	0.0181	0.0185	0.02588

BASE THICKNESS (IN) 1.533

PROJECTILE LENGTH (IN) 16.664

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 60-0 LCT 64 PROJECTILE R4

INSPECTION DATE 09/24/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	-0.0160	0.0003	0.01600	2.948	-0.0006	0.0013	0.00143	4.981	
2.90	-0.0056	-0.0036	0.00666	3.354	0.0046	0.0014	0.00481	5.122	
3.90	-0.0103	-0.0035	0.01088	3.475	0.0049	0.0015	0.00512	5.124	
4.90	-0.0121	-0.0024	0.01234	3.591	0.0	-0.0021	0.00210	4.981	
5.90	-0.0135	-0.0015	0.01358	3.708	0.0001	0.0017	0.00170	4.951	
6.90	-0.0138	-0.0006	0.01381	3.830	0.0023	0.0021	0.00311	4.951	
7.90	-0.0159	-0.0012	0.01595	3.918	0.0007	0.0020	0.00212	4.951	
8.90	-0.0166	0.0010	0.01662	3.921	-0.0005	0.0022	0.00226	4.949	
9.90	-0.0167	0.0035	0.01706	3.925	0.0007	0.0020	0.00212	4.951	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	-0.0183	0.0081	0.02001	3.929	-0.0001	0.0009	0.00091	4.981	
4.75	-0.0158	0.0076	0.01753	3.887	-0.0006	0.0015	0.00162	4.882	
3.75	-0.0137	0.0048	0.01452	3.709	-0.0010	0.0017	0.00197	4.697	
3.25	-0.0142	0.0035	0.01462	3.593	-0.0014	0.0016	0.00213	4.573	
2.75	-0.0158	-0.0005	0.01581	3.459	-0.0011	0.0017	0.00202	4.432	
2.25	-0.0153	-0.0004	0.01531	3.266	-0.0022	0.0024	0.00326	4.274	
1.75	-0.0153	-0.0015	0.01537	2.911	-0.0018	0.0017	0.00248	4.092	
1.25	-0.0086	-0.0061	0.01054	2.591	-0.0015	0.0018	0.00234	3.992	

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0020	0.0014	0.00244
7.00	0.0111	-0.0146	0.01834

BASE THICKNESS (IN) 1.518

PROJECTILE LENGTH (IN) 16.586

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 9/24/70

Z1	(- - - - INSIDE - - - - -)				(- - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0018	0.0142	0.01431	2.899	0.0	0.0015	0.00150	4.982
2.90	-0.0020	0.0095	0.00971	3.356	0.0015	-0.0006	0.00162	5.119
3.90	-0.0060	0.0086	0.01049	3.475	0.0003	0.0012	0.00124	5.123
4.90	-0.0083	0.0082	0.01167	3.594	-0.0004	0.0010	0.00108	4.990
5.90	-0.0128	0.0084	0.01531	3.710	0.0006	0.0017	0.00180	4.954
6.90	-0.0153	0.0077	0.01713	3.827	0.0005	0.0015	0.00158	4.954
7.90	-0.0145	0.0078	0.02008	3.917	0.0007	0.0019	0.00202	4.954
8.90	-0.0213	0.0086	0.02297	3.923	0.0006	0.0020	0.00209	4.954
9.90	-0.0191	0.0087	0.02099	3.927	-0.0001	0.0021	0.00210	4.954

Z2	(- - - - INSIDE - - - - -)				(- - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0203	0.0100	0.02263	3.934	-0.0003	0.0017	0.00172	4.982
4.75	-0.0173	0.0119	0.02100	3.887	0.0006	0.0028	0.00284	4.884
3.75	-0.0123	0.0129	0.01782	3.719	-0.0008	0.0031	0.00320	4.700
2.75	-0.0127	0.0104	0.01720	3.610	-0.0007	0.0027	0.00279	4.577
2.75	-0.0136	0.0123	0.01834	3.474	-0.0007	0.0032	0.00328	4.436
2.25	-0.0129	0.0104	0.01657	3.284	-0.0005	0.0024	0.00245	4.275
1.75	-0.0068	0.0086	0.01096	2.920	-0.0001	0.0034	0.00340	4.064
1.25	-0.0090	0.0103	0.01304	2.610	0.0005	0.0029	0.00294	3.813

Z3 X-ACT Y-ACT TIR

1.00	-0.0058	0.0057	0.00792
7.00	0.0065	0.0254	0.02622

BASE THICKNESS (IN) 1.575

PROJECTILE LENGTH (IN) 16.579

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 9/22/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIP	CIA	
1.90	0.0049	-0.0113	0.01232	2.872	-0.0002	0.0006	0.00043	4.990	
2.90	-0.0037	-0.0026	0.00452	3.364	-0.0024	-0.0002	0.00241	5.121	
3.90	-0.0061	-0.0045	0.00754	3.482	-0.0020	0.0001	0.00200	5.121	
4.90	0.0007	-0.0069	0.00694	3.598	-0.0023	0.0004	0.00233	4.981	
5.90	0.0026	-0.0072	0.00805	3.710	-0.0016	0.0013	0.00206	4.954	
6.90	0.0060	-0.0065	0.00942	3.828	-0.0008	0.0005	0.00094	4.955	
7.90	0.0090	-0.0084	0.01160	3.921	-0.0006	0.0004	0.00072	4.956	
8.90	0.0114	-0.0095	0.01515	3.924	-0.0014	0.0011	0.00178	4.957	
9.90	0.0116	-0.0112	0.01612	3.926	-0.0020	0.0010	0.00224	4.953	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIP	CIA	
5.75	0.0151	-0.0105	0.01859	3.924	-0.0013	0.0016	0.00206	4.982	
4.75	0.0151	-0.0101	0.01817	3.881	-0.0014	0.0020	0.00244	4.886	
3.75	0.0068	-0.0021	0.00712	3.734	-0.0010	0.0027	0.00238	4.696	
3.25	0.0025	0.0026	0.00361	3.625	-0.0013	0.0017	0.00214	4.576	
2.75	-0.0023	0.0023	0.00510	3.486	-0.0017	0.0016	0.00233	4.436	
2.25	-0.0059	0.0068	0.00900	3.300	-0.0013	0.0020	0.00230	4.270	
1.75	-0.0154	0.0073	0.01726	2.953	-0.0010	0.0014	0.00172	4.040	
1.25	-0.0104	0.0124	0.01618	2.619	-0.0026	0.0019	0.00222	3.880	

Z3 X-ACT Y-ACT TIR

1.00	-0.0069	-0.0024	0.00735
7.00	-0.0120	0.0068	0.01458

BASE THICKNESS (IN) 1.520

PROJECTILE LENGTH (IN) 16.646

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

INSPECTION DATE 9/23/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.50	0.0038	0.0025	0.00428	2.995	0.0005	-0.0010	0.00112	4.978
2.90	0.0149	0.0045	0.01556	3.268	0.0028	0.0006	0.00286	5.121
3.90	0.0135	0.0040	0.01408	3.484	0.0023	0.0004	0.00233	5.122
4.90	0.0058	0.0019	0.00598	3.605	-0.0007	0.0008	0.00106	4.990
5.50	0.0114	0.0010	0.01144	3.717	-0.0004	0.0007	0.00081	4.954
6.90	0.0125	0.0003	0.01250	3.833	0.0008	0.0010	0.00128	4.954
7.90	0.0114	-0.0007	0.01142	3.919	0.0002	0.0015	0.00151	4.954
8.90	0.0121	-0.0014	0.01218	3.921	-0.0015	0.0014	0.00205	4.957
9.90	0.0144	-0.0017	0.01450	3.922	-0.0020	0.0014	0.00244	4.957

72	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0127	-0.0022	0.01289	3.917	-0.0015	0.0027	0.00307	4.923
4.75	0.0115	-0.0007	0.01152	3.884	-0.0017	0.0026	0.00311	4.882
3.75	0.0033	0.0	0.00330	3.714	-0.0022	0.0039	0.00448	4.894
3.25	0.0018	0.0034	0.00402	3.601	-0.0029	0.0030	0.00417	4.872
2.75	-0.0022	0.0077	0.00804	3.467	-0.0027	0.0021	0.00342	4.430
2.25	-0.0020	0.0070	0.00728	3.278	-0.0031	0.0026	0.00405	4.205
1.75	-0.0025	0.0105	0.01079	2.918	-0.0013	0.0027	0.00290	4.064
1.25	-0.0116	0.0025	0.00297	2.608	-0.0017	0.0027	0.00319	3.882

73	X-ACT	Y-ACT	TIR
1.00	-0.0068	0.0083	0.01073
7.00	-0.0060	0.0058	0.00835

BASE THICKNESS (IN) 1.516

PROJECTILE LENGTH (IN) 16.654

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 09/16/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
71	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	-0.0094	0.0224	0.02429	2.953	-0.0	-0.0005	0.00050	4.980	
2.90	-0.0072	0.0149	0.01655	3.362	0.0011	0.0008	0.00136	5.122	
3.90	-0.0059	0.0190	0.01989	3.478	-0.0	0.0011	0.00110	5.121	
4.90	-0.0085	0.0218	0.02340	3.598	-0.0005	0.0007	0.00086	4.979	
5.90	-0.0044	0.0225	0.02293	3.713	-0.0	0.0011	0.00110	4.949	
6.90	0.0008	0.0218	0.02181	3.830	0.0006	0.0003	0.00067	4.945	
7.90	0.0021	0.0226	0.02270	3.919	0.0008	0.0012	0.00144	4.946	
8.90	0.0071	0.0219	0.02302	3.920	-0.0005	0.0013	0.00139	4.945	
9.90	0.0101	0.0210	0.02330	3.920	0.0007	0.0021	0.00221	4.946	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
22	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0160	0.0225	0.02761	3.919	0.0017	0.0020	0.00262	4.984	
4.75	0.0130	0.0179	0.02266	3.883	0.0016	0.0034	0.00376	4.881	
3.75	0.0101	0.0074	0.01252	3.725	0.0002	0.0030	0.00301	4.690	
3.25	0.0094	0.0038	0.01014	3.612	-0.0035	0.0014	0.00377	4.571	
2.75	0.0066	0.0021	0.00693	3.480	-0.0010	0.0032	0.00375	4.433	
2.25	0.0059	0.0	0.00590	3.285	-0.0014	0.0031	0.00340	4.272	
1.75	0.0028	-0.0043	0.00513	2.941	-0.0002	0.0024	0.00241	4.090	
1.25	0.0004	-0.0049	0.00492	2.614	0.0004	0.0041	0.00412	3.892	

23	X-ACT	Y-ACT	TIR
1.00	-0.0084	0.0007	0.00843
7.00	-0.0109	0.0054	0.01216

1.00 -0.0084 0.0007 0.00843

7.00 -0.0109 0.0054 0.01216

BASE THICKNESS (IN) 1.542

PROJECTILE LENGTH (IN) 16.647

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 9/25/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.50	0.0065	-0.0117	0.01338	2.926	-0.0003	-0.0002	0.00036	4.982	
2.90	-0.0009	-0.0173	0.01732	3.361	0.0035	0.0008	0.00359	5.122	
3.50	0.0014	-0.0154	0.01546	3.472	0.0003	0.0002	0.00036	5.126	
4.90	0.0033	-0.0145	0.01487	3.591	-0.0017	0.0	0.00170	4.984	
5.90	0.0052	-0.0127	0.01372	3.706	-0.0003	-0.0009	0.00095	4.960	
6.90	0.0055	-0.0124	0.01357	3.826	-0.0001	-0.0009	0.00081	4.959	
7.90	0.0025	-0.0105	0.01075	3.921	-0.0006	0.0002	0.00062	4.960	
8.90	0.0036	-0.0098	0.00951	3.924	-0.0020	-0.0004	0.00204	4.959	
9.90	0.0053	-0.0055	0.00764	3.925	-0.0010	-0.0006	0.00117	4.962	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0071	-0.0038	0.00805	3.624	-0.0009	-0.0016	0.00184	4.982	
4.75	0.0021	-0.0025	0.00326	3.880	-0.0014	-0.0010	0.00172	4.887	
3.75	-0.0026	-0.0029	0.00462	3.691	-0.0019	-0.0013	0.00230	4.649	
3.25	-0.0060	0.0004	0.00601	3.572	-0.0030	-0.0015	0.00335	4.577	
2.75	-0.0063	0.0021	0.00702	3.442	-0.0023	-0.0026	0.00347	4.435	
2.25	-0.0075	0.0018	0.00771	3.272	-0.0024	-0.0020	0.00312	4.271	
1.75	-0.0119	0.0018	0.01204	2.955	-0.0017	-0.0018	0.00248	4.049	
1.25	-0.0160	0.0055	0.01692	2.618	-0.0016	-0.0025	0.00297	3.886	

Z3 X-ACT Y-ACT TIR

1.00	-0.0019	0.0052	0.00554
7.00	0.0230	0.0213	0.03135

BASE THICKNESS (IN) 1.554

PROJECTILE LENGTH (IN) 16.595

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 09/16/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIP	DIA
1.90	C.0008	-0.0079	0.01183	2.985	-0.0007	-0.0010	0.00122	4.981
2.90	0.0106	-0.0098	0.01444	3.375	0.0016	0.0008	0.00179	5.124
3.90	0.0112	-0.0101	0.01508	3.486	-0.0033	-0.0005	0.00334	5.119
4.90	0.0134	-0.0088	0.01603	3.606	-0.0022	-0.0018	0.00294	4.979
5.90	0.0131	-0.0113	0.01730	3.719	-0.0009	-0.0028	0.00294	4.957
6.90	0.0142	-0.0109	0.01790	3.836	0.0005	-0.0023	0.00235	4.960
7.90	0.0124	-0.0120	0.01726	3.928	-0.0003	-0.0022	0.00222	4.958
8.90	0.0140	-0.0132	0.01924	3.932	-0.0011	-0.0020	0.00228	4.962
9.90	0.0134	-0.0161	0.02095	3.938	-0.0009	-0.0026	0.00275	4.962

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	C.0127	-0.0204	0.02457	3.935	0.0004	-0.0008	0.00092	4.985
4.75	C.0108	-0.0182	0.02116	3.892	0.0010	-0.0020	0.00224	4.890
3.75	0.0097	-0.0142	0.01720	3.729	-0.0012	-0.0013	0.00177	4.703
3.25	0.0104	-0.0144	0.01776	3.616	-0.0013	-0.0011	0.00170	4.582
2.75	C.0107	-0.0109	0.01527	3.486	-0.0015	-0.0015	0.00212	4.440
2.25	0.0106	-0.0100	0.01457	3.305	-0.0009	-0.0014	0.00166	4.276
1.75	C.0088	-0.0068	0.01112	2.964	-0.0002	-0.0018	0.00181	4.005
1.25	C.0060	-0.0046	0.00829	2.638	-0.0008	-0.0017	0.00188	3.892

Z3 X-ACT Y-ACT TIP

1.00 -0.0015 -0.0050 0.00522
7.00 -0.0191 0.0029 0.01932

BASE THICKNESS (IN) 1.542

PROJECTILE LENGTH (IN) 16.650

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

INSPECTION DATE 9/21/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)			
Z1	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0252	-0.0280	0.03787	2.990	-0.0047	-0.0018	0.00503	4.994
2.90	-0.0245	-0.0263	0.03594	3.353	-0.0013	-0.0014	0.00191	5.127
3.90	-0.0234	-0.0225	0.02246	3.474	-0.0029	-0.0002	0.00292	5.124
4.90	-0.0213	-0.0185	0.02828	3.593	-0.0028	-0.0012	0.00309	4.986
5.90	-0.0203	-0.0145	0.02495	3.706	-0.0008	-0.0015	0.00170	4.958
6.90	-0.0144	-0.0120	0.01874	3.822	-0.0014	-0.0020	0.00244	4.950
7.90	-0.0100	-0.0087	0.01325	3.911	-0.0049	-0.0032	0.00585	4.956
8.90	-0.0090	-0.0040	0.00985	3.916	-0.0030	-0.0025	0.00391	4.956
9.90	-0.0120	-0.0014	0.01203	3.919	-0.0016	-0.0037	0.00403	4.960

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)			
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0101	0.0026	0.01043	3.924	-0.0002	-0.0029	0.00291	4.981
4.75	-0.0090	0.0028	0.00848	3.884	0.0	-0.0021	0.00210	4.987
3.75	-0.0107	0.0052	0.01190	3.706	-0.0012	-0.0022	0.00251	4.701
3.25	-0.0083	0.0097	0.01277	3.587	-0.0014	-0.0024	0.00278	4.578
2.75	-0.0037	0.0140	0.01448	3.457	-0.0008	-0.0028	0.00291	4.436
2.25	-0.0026	0.0167	0.01690	3.281	-0.0002	-0.0027	0.00271	4.276
1.75	0.0005	0.0216	0.02161	2.564	0.0	-0.0028	0.00280	4.094
1.25	-0.0002	0.0138	0.01390	2.627	0.0002	-0.0023	0.00231	3.995

Z3	X-ACT	Y-ACT	TIP
1.00	0.0032	-0.0046	0.00560
7.00	0.0010	-0.0091	0.00915

BASE THICKNESS (IN) 1.505

PROJECTILE LENGTH (IN) 16.594

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0049	-0.0077	0.00913	2.966	0.0010	-0.0007	0.00122	4.972
2.90	0.0007	-0.0166	0.01661	3.352	0.0024	-0.0006	0.00247	5.121
3.90	0.0015	-0.0131	0.01319	3.471	0.0026	-0.0011	0.00232	5.122
4.90	-0.0012	-0.0131	0.01315	3.596	-0.0007	0.0001	0.00071	4.931
5.90	0.0018	-0.0069	0.00713	3.713	0.0008	0.0	0.00080	4.959
6.90	0.0015	-0.0049	0.00512	3.834	0.0010	-0.0	0.00100	4.957
7.90	0.0023	-0.0047	0.00523	3.924	0.0023	0.0004	0.00233	4.957
8.90	0.0019	-0.0020	0.00276	3.929	0.0001	-0.0004	0.00041	4.957
9.90	0.0020	-0.0023	0.00378	3.935	0.0008	-0.0005	0.00094	4.957

22	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0020	-0.0027	0.00404	3.939	0.0016	-0.0005	0.00163	4.992
4.75	0.0002	-0.0019	0.00181	3.892	0.0015	-0.0005	0.00158	4.892
3.75	-0.0104	0.0001	0.01040	3.708	0.0007	0.0006	0.00032	4.702
3.25	-0.0105	0.0015	0.01061	3.595	0.0008	-0.0002	0.00082	4.581
2.75	-0.0072	0.0068	0.00990	3.456	0.0	-0.0006	0.00060	4.438
2.25	-0.0056	0.0097	0.01255	3.290	0.0009	-0.0001	0.00091	4.277
1.75	-0.0082	0.0160	0.01802	2.951	0.0017	0.0001	0.00170	4.037
1.25	-0.0066	0.0176	0.01819	2.644	0.0023	0.0001	0.00230	3.836

23	X-ACT	Y-ACT	TIR
1.00	0.0001	0.0046	0.00460
7.00	0.0213	0.0060	0.02275

BASE THICKNESS (IN) 1.586

PROJECTILE LENGTH (IN) 16.576

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 9/25/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0113	-0.0011	0.01135	2.947	0.0014	-0.0004	0.00146	4.992
2.90	0.0104	-0.0039	0.01111	3.358	0.0017	0.0029	0.00336	5.120
3.90	0.0077	-0.0046	0.00897	3.472	0.0026	0.0045	0.00520	5.120
4.90	0.0067	-0.0039	0.00741	3.588	0.0008	0.0004	0.00087	4.981
5.90	0.0073	-0.0035	0.00810	3.707	0.0006	0.0007	0.00092	4.957
6.90	0.0083	-0.0037	0.00909	3.822	0.0023	0.0009	0.00247	4.957
7.90	0.0086	-0.0022	0.00888	3.910	0.0017	0.0	0.00170	4.957
8.90	0.0084	-0.0033	0.00902	3.916	0.0011	0.0013	0.00170	4.959
9.90	0.0089	-0.0028	0.00933	3.916	0.0015	0.0008	0.00170	4.959

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	0.0098	-0.0029	0.01022	3.919	0.0020	0.0009	0.00219	4.984
4.75	0.0096	0.0001	0.00960	3.887	0.0016	0.0019	0.00248	4.987
3.75	0.0029	0.0020	0.00352	3.736	0.0013	0.0016	0.00206	4.700
3.25	0.0024	0.0009	0.00256	3.628	0.0015	0.0014	0.00205	4.577
2.75	0.0009	0.0020	0.00219	3.494	0.0015	0.0018	0.00234	4.437
2.25	0.0018	0.0003	0.00182	3.300	0.0025	0.0011	0.00273	4.273
1.75	0.0056	0.0076	0.00944	2.947	0.0021	0.0010	0.00232	4.092
1.25	0.0090	0.0051	0.00949	2.622	0.0013	0.0011	0.00170	3.890

Z3 X-ACT Y-ACT TIR

1.00	-0.0016	0.0053	0.00554
7.00	0.0006	0.0008	0.00100

BASE THICKNESS (IN) 1.545

PROJECTILE LENGTH (IN) 16.590

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.90	-0.0123	0.0003	0.01230	2.917	-0.0040	-0.0017	0.00435	4.984
2.90	-0.0087	-0.0030	0.00920	3.352	-0.0024	-0.0011	0.00264	5.125
3.90	-0.0179	-0.0048	0.01852	3.475	-0.0038	0.0002	0.00321	5.127
4.90	-0.0210	-0.0066	0.02268	3.553	-0.0019	-0.0008	0.00206	4.986
5.90	-0.0214	-0.0042	0.02181	3.700	-0.0034	0.0003	0.00341	4.958
6.90	-0.0231	-0.0058	0.02392	3.828	-0.0026	0.0005	0.00265	4.952
7.90	-0.0254	-0.0055	0.02598	3.918	-0.0038	-0.0005	0.00383	4.957
8.90	-0.0245	-0.0050	0.02500	3.921	-0.0050	0.0002	0.00500	4.959
9.90	-0.0269	-0.0056	0.02656	3.931	-0.0042	0.0004	0.00422	4.959

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	-0.0262	-0.0135	0.02647	3.930	-0.0039	-0.0008	0.00398	4.991
4.75	-0.0242	-0.0101	0.02632	3.893	-0.0051	-0.0001	0.00510	4.995
3.75	-0.0262	-0.0065	0.02699	3.734	-0.0053	0.0009	0.00538	4.702
3.25	-0.0235	-0.0007	0.02351	3.625	-0.0073	0.0	0.00730	4.581
2.75	-0.0201	0.0031	0.02034	3.492	-0.0061	0.0004	0.00611	4.439
2.25	-0.0184	0.0049	0.01904	3.310	-0.0064	0.0009	0.00646	4.279
1.75	-0.0156	0.0076	0.01735	2.960	-0.0059	0.0005	0.00592	4.090
1.25	-0.0143	0.0123	0.01886	2.630	-0.0062	0.0	0.00620	3.907

Z3 X-ACT Y-ACT TIP

1.00 -0.0098 -0.0001 0.00980

7.00 -0.0120 -0.0217 0.02480

BASE THICKNESS (IN) 1.567

PROJECTILE LENGTH (IN) 10.650

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	C.0024	-0.0122	0.01243	2.852	0.0	-0.0001	0.00010	4.821
2.90	-0.0009	-0.0124	0.01242	3.361	0.0026	0.0003	0.00262	5.122
3.90	-0.0013	-0.0123	0.01227	3.477	0.0022	0.0005	0.00226	5.120
4.90	-0.0029	-0.0118	0.01215	3.594	-0.0008	0.0003	0.00085	4.980
5.90	-0.0031	-0.0137	0.01405	3.712	0.0013	0.0002	0.00132	4.954
6.90	-0.0025	-0.0130	0.01324	3.827	0.0024	0.0004	0.00244	4.957
7.90	-0.0039	-0.0091	0.00990	3.918	0.0025	0.0	0.00250	4.955
8.90	-0.0020	-0.0095	0.00993	3.924	0.0024	0.0003	0.00242	4.952
9.90	-0.0044	-0.0093	0.01028	3.924	0.0030	0.0001	0.00300	4.954

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0052	-0.0097	0.01101	3.922	0.0010	0.0013	0.00144	4.982
4.75	-0.0001	-0.0061	0.00610	3.888	0.0049	0.0	0.00490	4.893
3.75	C.0004	C.0008	C.00089	3.770	0.0040	0.0001	0.00400	4.707
3.25	0.0007	-0.0001	0.00071	3.664	0.0038	0.0002	0.00381	4.585
2.75	C.0006	-0.0009	C.00108	3.528	0.0041	-0.0011	0.00424	4.442
2.25	-0.0001	-0.0014	0.00140	3.329	0.0052	-0.0007	0.00525	4.231
1.75	C.0017	-0.0016	0.00233	2.992	0.0048	-0.0009	0.00498	4.090
1.25	0.0025	-0.0035	0.00405	2.647	0.0045	-0.0007	0.00455	3.899

Z3 X-ACT Y-ACT TIR

1.00 0.0042 -0.0012 C.00672
7.00 0.0301 -0.0054 C.03042

BASE THICKNESS (IN) 1.592

PROJECTILE LENGTH (IN) 16.595

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 9/16/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
71	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.00	0.0137	0.0193	0.01648	3.022	0.0045	0.0006	0.00454	4.984
2.00	0.0121	0.0175	0.01424	3.360	-0.0018	-0.0008	0.00197	5.126
3.00	0.0192	0.0175	0.01187	3.477	0.0001	-0.0010	0.00100	5.128
4.00	0.0054	0.0091	0.01059	3.600	-0.0025	-0.0006	0.00078	4.987
5.00	0.0040	0.0059	0.01105	3.712	0.0018	-0.0006	0.00190	4.958
6.00	0.0026	0.0114	0.01169	3.828	0.0005	-0.0018	0.00187	4.960
7.00	0.0006	0.0133	0.01321	3.910	-0.0054	-0.0030	0.00618	4.952
8.00	-0.0023	0.0114	0.01163	3.914	-0.0004	-0.0017	0.00108	4.955
9.00	-0.0036	0.0143	0.01475	3.919	-0.0009	-0.0014	0.00166	4.956

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
72	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	-0.0048	0.0157	0.01642	3.924	-0.0005	-0.0021	0.00216	4.980
4.75	-0.0059	0.0152	0.01627	3.879	0.0031	0.0004	0.00313	4.887
3.75	-0.0031	0.0161	0.01640	3.700	-0.0025	-0.0021	0.00326	4.638
2.75	-0.0020	0.0135	0.01365	3.580	-0.0018	-0.0016	0.00241	4.576
1.75	-0.0028	0.0067	0.00726	3.449	-0.0029	-0.0028	0.00403	4.435
0.75	-0.0042	0.0062	0.00749	3.269	-0.0029	-0.0022	0.00364	4.275
1.75	-0.0065	0.0026	0.00700	2.945	-0.0023	-0.0025	0.00340	4.094
1.25	-0.0064	-0.0020	0.00234	2.617	-0.0025	-0.0025	0.00354	3.894

73	X-ACT	Y-ACT	TIP
1.00	-0.0040	-0.0067	0.00791
2.00	-0.0075	-0.0137	0.01562

BASE THICKNESS (IN) 1.466

PROJECTILE LENGTH (IN) 16.990

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

INSPECTION DATE 9/25/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0142	-0.0074	0.01601	2.893	0.0019	0.0007	0.00202	4.983
2.90	0.0070	0.0006	0.00703	3.361	0.0024	0.0029	0.00376	5.124
3.90	0.0081	0.0008	0.00814	3.476	0.0010	0.0037	0.00383	5.123
4.90	0.0101	0.0004	0.01011	3.601	-0.0010	0.0019	0.00215	4.985
5.90	0.0123	0.0033	0.01322	3.709	0.0025	0.0026	0.00361	4.954
6.90	0.0141	0.0045	0.01480	3.825	0.0020	0.0021	0.00290	4.951
7.90	0.0132	0.0061	0.01454	3.921	0.0019	0.0027	0.00330	4.952
8.90	0.0132	0.0065	0.01382	3.920	0.0014	0.0024	0.00278	4.951
9.90	0.0117	0.0064	0.01351	3.928	0.0008	0.0022	0.00234	4.950

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0111	0.0076	0.01345	3.928	0.0005	0.0022	0.00220	4.991
4.75	0.0092	0.0053	0.01093	3.876	0.0019	0.0034	0.00383	4.894
3.75	0.0088	0.0047	0.00998	3.731	0.0017	0.0034	0.00390	4.637
3.25	0.0069	0.0014	0.00704	3.622	0.0010	0.0036	0.00374	4.575
2.75	0.0050	0.0004	0.00502	3.483	0.0013	0.0040	0.00421	4.434
2.25	0.0055	0.0005	0.00552	3.292	0.0007	0.0036	0.00367	4.275
1.75	0.0086	-0.0009	0.00865	2.941	0.0010	0.0039	0.00403	4.095
1.25	0.0085	-0.0035	0.00919	2.628	0.0012	0.0041	0.00427	3.895

Z3 X-ACT Y-ACT TIR

1.00 -0.0084 0.0007 0.00843
7.00 -0.0109 0.0054 0.01216

BASE THICKNESS (IN) 1.586

PROJECTILE LENGTH (IN) 16.584

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIP	DIA
1.50	-0.0014	-0.0049	0.00510	2.904	0.0	-0.0015	0.00150	4.941
2.90	-0.0014	0.0014	0.00198	3.349	-0.0009	-0.0013	0.00159	5.127
3.50	-0.0042	-0.0005	0.00423	3.462	-0.0003	0.0014	0.00143	5.133
4.90	-0.0058	0.0010	0.00539	3.576	-0.0008	0.0014	0.00161	4.993
5.90	-0.0053	0.0013	0.00546	3.694	-0.0001	0.0	0.00010	4.959
6.50	-0.0063	0.0025	0.00679	3.813	-0.0004	0.0	0.00040	4.960
7.90	-0.0045	0.0045	0.00636	3.912	-0.0010	0.0013	0.00164	4.960
8.50	-0.0050	0.0044	0.00666	3.920	-0.0015	0.0022	0.00246	4.963
9.90	-0.0070	0.0061	0.00929	3.933	0.0003	0.0040	0.00401	4.958

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	-0.0072	0.0071	0.01011	3.933	-0.0017	0.0015	0.00227	4.990
4.75	-0.0070	0.0051	0.00866	3.897	-0.0020	0.0022	0.00364	4.997
3.75	-0.0062	0.0074	0.00966	3.729	-0.0047	0.0026	0.00537	4.702
3.25	-0.0043	0.0067	0.00920	3.610	-0.0029	0.0036	0.00462	4.580
2.75	-0.0010	0.0042	0.00432	3.478	-0.0034	0.0027	0.00434	4.438
2.25	-0.0004	0.0040	0.00402	3.296	-0.0035	0.0042	0.00547	4.277
1.75	0.0052	-0.0023	0.00559	2.957	-0.0034	0.0037	0.00502	4.086
1.25	0.0042	-0.0113	0.01206	2.612	-0.0034	0.0052	0.00621	3.836

Z3 X-ACT Y-ACT TIR

1.00 -0.0045 0.0034 0.00734
 7.00 -0.0249 0.0124 0.02962

BASE THICKNESS (IN) 1.538

PROJECTILE LENGTH (IN) 16.509

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/28 MK 66- LOT 67 PROJECTILE R4

INSPECTION DATE 9/16/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
71	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA	
1.90	0.0272	-0.0242	0.04445	2.894	0.0018	0.0015	0.00234	4.985	
2.90	0.0237	-0.0196	0.03075	3.374	0.0017	0.0017	0.00240	5.123	
3.90	0.0211	-0.0159	0.02894	3.496	-0.0009	0.0017	0.00102	5.124	
4.90	0.0200	-0.0207	0.02878	3.611	-0.0015	0.0006	0.00162	4.984	
5.90	0.0175	-0.0228	0.02874	3.727	0.0002	0.0014	0.00141	4.956	
6.90	0.0136	-0.0213	0.02527	3.840	0.0022	0.0010	0.00242	4.955	
7.90	0.0116	-0.0159	0.02295	3.929	-0.0001	0.0010	0.00100	4.957	
8.90	0.0057	-0.0187	0.01955	3.932	-0.0006	0.0012	0.00134	4.959	
9.90	0.0043	-0.0170	0.01754	3.937	0.0009	0.0021	0.00228	4.959	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
72	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA	
5.75	-0.0012	-0.0162	0.01624	3.943	0.0014	0.0007	0.00157	4.985	
4.75	-0.0059	-0.0104	0.01191	3.912	-0.0009	0.0014	0.00166	4.884	
3.75	-0.0075	-0.0026	0.00794	3.751	0.0001	0.0007	0.00071	4.694	
2.75	-0.0077	0.0000	0.00775	3.639	0.0007	0.0014	0.00157	4.573	
2.75	-0.0065	0.0025	0.00682	3.514	-0.0001	0.0016	0.00160	4.432	
2.25	-0.0061	0.0082	0.01225	3.328	-0.0005	0.0005	0.00071	4.267	
1.75	-0.0067	0.0127	0.01525	3.013	-0.0003	0.0011	0.00114	4.095	
1.25	-0.0100	0.0125	0.01601	2.670	-0.0015	0.0015	0.00212	3.877	

73	X-ACT	Y-ACT	TIP
1.00	-0.0035	-0.0029	0.00486
7.00	0.0000	-0.0011	0.00110

BASE THICKNESS (IN) 1.540

PROJECTILE LENGTH (IN) 16.655

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/30 MK 66-1 LOT 67 PROJECTILE B5

INSPECTION DATE 9/16/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
71	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA	
1.90	0.0067	-0.0100	0.01250	2.948	0.0002	0.0000	0.00020	4.006	
2.60	0.0027	-0.0126	0.01280	3.345	-0.0015	-0.0005	0.00150	5.126	
2.90	0.0021	-0.0116	0.01201	3.483	-0.0026	0.0011	0.00125	5.122	
4.00	-0.0054	-0.0115	0.01151	3.604	0.0002	0.0000	0.00002	4.086	
5.90	0.0034	-0.0115	0.01100	3.714	-0.0020	0.0001	0.00001	4.956	
6.90	0.0056	-0.0108	0.01217	3.837	-0.0036	-0.0001	0.00041	4.950	
7.90	0.0045	-0.0091	0.01015	3.924	0.0014	0.0014	0.00098	4.055	
8.90	0.0017	-0.0063	0.00944	3.925	-0.0011	0.0012	0.00164	4.955	
9.90	0.0002	-0.0075	0.00776	3.932	-0.0001	0.0011	0.00110	4.950	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
72	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA	
5.75	0.0024	-0.0047	0.00528	3.031	0.0020	0.0017	0.00120	4.002	
4.75	0.0027	-0.0020	0.00204	2.887	0.0000	0.0024	0.00256	4.887	
3.75	0.0027	-0.0023	0.00838	3.722	0.0005	0.0025	0.00255	4.700	
2.25	0.0055	-0.0062	0.00820	3.615	0.0002	0.0027	0.00271	4.581	
0.75	0.0038	-0.0080	0.00668	3.484	0.0035	0.0035	0.00405	4.44	
0.25	0.0057	-0.0064	0.01094	3.300	0.0036	0.0020	0.00204	4.275	
1.75	0.0064	-0.0123	0.01548	2.937	0.0012	0.0031	0.00332	4.002	
1.25	0.0049	-0.0095	0.01168	2.636	0.0022	0.0032	0.00388	3.001	

73	X-ACT	Y-ACT	TIP
1.00	0.0026	0.0088	0.00551
7.00	0.0114	0.0170	0.02047

BASE THICKNESS (IN) 1.535

PROJECTILE LENGTH (IN) 16.662

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 68 PROJECTILE B1

INSPECTION DATE 9/25/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
71	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.90	-0.0012	-0.0024	0.00134	2.982	0.0018	-0.0002	0.00181	4.981
2.90	-0.0147	-0.0008	0.01472	3.262	0.0025	0.0002	0.00251	5.122
3.90	-0.0155	0.0005	0.01551	3.480	0.0008	0.0005	0.00094	5.122
4.90	-0.0150	-0.0008	0.01502	3.605	-0.0001	-0.0002	0.00022	4.981
5.90	-0.0116	-0.0026	0.01189	3.713	0.0015	0.0004	0.00155	4.957
6.90	-0.0122	-0.0020	0.01236	3.828	0.0022	-0.0002	0.00221	4.957
7.90	-0.0111	-0.0027	0.01142	3.919	0.0016	0.0001	0.00160	4.957
8.90	-0.0097	-0.0045	0.01069	3.921	0.0002	0.0004	0.00045	4.957
9.90	-0.0077	-0.0059	0.00970	3.927	0.0009	-0.0001	0.00091	4.958

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
72	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	-0.0032	-0.0077	0.00834	3.936	0.0019	0.0015	0.00242	4.982
4.75	-0.0010	-0.0066	0.00669	3.902	0.0010	0.0018	0.00205	4.985
3.75	0.0044	-0.0042	0.00603	3.693	-0.0003	0.0013	0.00133	4.609
3.25	0.0019	-0.0041	0.00452	3.568	0.0005	0.0008	0.00094	4.577
2.75	0.0006	-0.0013	0.00142	3.440	-0.0002	0.0010	0.00102	4.436
2.25	-0.0010	-0.0035	0.00364	3.274	0.0003	0.0019	0.00192	4.274
1.75	0.0009	-0.0056	0.00567	2.981	0.0022	0.0017	0.00278	4.084
1.25	0.0028	-0.0047	0.00547	2.621	0.0015	0.0013	0.00198	3.825

73 X-ACT Y-ACT TIP

1.00 -0.0020 -0.0018 0.00265

7.00 -0.0165 -0.0171 0.02376

BASE THICKNESS (IN) 1.524

PROJECTILE LENGTH (IN) 16.582

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GIA PROJECTILE INSPECTION DATA

5/38 MK 44-1 LOT 48 PROJECTILE B2

INSPECTION DATE 9/21/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
71	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA	
1.00	-0.0041	0.0042	0.00587	3.006	0.0039	-0.0036	0.00108	4.000	
2.00	-0.0037	0.0065	0.00757	3.362	-0.0021	-0.0038	0.00225	5.123	
3.00	-0.0045	0.0065	0.00910	3.470	-0.0028	0.0005	0.00284	5.125	
4.00	-0.0055	0.0042	0.00692	3.802	-0.0035	-0.0023	0.00351	4.007	
5.00	-0.0048	0.0024	0.00510	3.714	0.0007	-0.0023	0.00076	4.066	
6.00	-0.0012	0.0010	0.00225	3.031	-0.0005	0.0022	0.00054	4.950	
7.00	-0.0020	0.0007	0.00008	3.013	-0.0002	0.0001	0.00022	4.050	
8.00	-0.0054	-0.0015	0.0056	3.010	-0.0028	0.0012	0.00222	4.053	
9.00	-0.0074	-0.0011	0.00748	3.020	-0.0032	0.0001	0.00325	4.061	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
72	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA	
5.75	-0.0040	-0.0025	0.00550	3.032	-0.0010	0.0010	0.00143	4.004	
6.75	-0.0046	-0.0044	0.00637	3.891	0.0038	0.0026	0.00461	4.800	
7.75	0.0014	-0.0036	0.00284	3.710	-0.0025	0.0022	0.00233	4.701	
8.25	0.0002	-0.0069	0.00000	3.564	-0.0025	0.0017	0.00346	4.501	
9.75	0.0025	-0.0083	0.00867	3.462	-0.0022	0.0024	0.00420	4.426	
10.25	0.0006	-0.0101	0.01012	3.272	-0.0015	0.0032	0.00353	4.070	
11.75	0.0041	-0.0117	0.01240	3.010	-0.0024	0.0023	0.00332	4.004	
12.25	0.0102	-0.0173	0.01254	2.590	-0.0012	0.0032	0.00340	3.000	

73	X-ACT	Y-ACT	TIP
1.00	-0.0071	0.0083	0.01002
7.00	-0.0105	0.0087	0.01264

BASE THICKNESS (IN) 1.521

PROJECTILE LENGTH (IN) 14.600

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-G LCT 69 PROJECTILE R3

INSPECTION DATE 9/24/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.00	-0.0305	0.0140	0.03356	2.778	0.0011	-0.0009	0.00142	4.981	
2.00	-0.0112	-0.0028	0.01154	3.350	0.0005	-0.0022	0.00226	5.124	
3.00	-0.0156	-0.0034	0.01597	3.468	0.0006	-0.0017	0.00180	5.123	
4.00	-0.0167	-0.0081	0.01856	3.593	-0.0009	0.0009	0.00127	4.982	
5.00	-0.0186	-0.0021	0.01872	3.701	-0.0021	0.0009	0.00228	4.955	
6.00	-0.0167	0.0005	0.01671	3.818	-0.0027	0.0007	0.00279	4.955	
7.00	-0.0176	0.0017	0.01768	3.917	-0.0016	0.0014	0.00213	4.956	
8.00	-0.0182	0.0026	0.01828	3.922	-0.0024	0.0009	0.00256	4.955	
9.00	-0.0194	0.0047	0.01996	3.928	-0.0033	0.0013	0.00355	4.955	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	-0.0211	0.0059	0.02191	3.936	-0.0021	0.0002	0.00211	4.981	
4.75	-0.0188	0.0042	0.01926	3.896	-0.0035	0.0016	0.00385	4.885	
3.75	-0.0168	0.0045	0.01739	3.743	-0.0038	0.0013	0.00402	4.699	
2.75	-0.0131	0.0042	0.01376	3.634	-0.0038	0.0017	0.00416	4.578	
2.75	-0.0059	0.0034	0.00681	3.506	-0.0035	0.0019	0.00398	4.435	
2.25	-0.0027	0.0044	0.00516	3.330	-0.0045	0.0017	0.00491	4.275	
1.75	0.0021	0.0016	0.00264	2.994	-0.0034	0.0020	0.00394	4.074	
1.25	0.0045	0.0005	0.00453	2.858	-0.0028	0.0026	0.00382	3.896	

Z3 X-ACT Y-ACT TIR

1.00 -0.0023 0.0063 0.00671
7.00 -0.0009 0.0155 0.01553

BASE THICKNESS (IN) 1.626

PROJECTILE LENGTH (IN) 16.582

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/28 MK 66-0 LCT 6R PROJECTILE B4

INSPECTION DATE 09/16/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z1	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.00	-0.0067	0.0203	0.02138	2.904	-0.0	-0.0010	0.00100	4.991
2.30	-0.0112	0.0115	0.01605	3.357	-0.0012	0.0009	0.00150	5.120
3.90	-0.0097	0.0107	0.01444	3.476	-0.0007	0.0027	0.00270	5.120
4.90	-0.0060	0.0088	0.01065	3.597	-0.0016	-0.0003	0.00160	4.991
5.90	-0.0057	0.0100	0.01325	3.707	-0.0003	-0.0009	0.00127	4.950
6.90	-0.0047	0.0100	0.01105	3.824	0.0001	-0.0014	0.00140	4.958
7.90	-0.0028	0.0088	0.00923	3.914	0.0003	-0.0013	0.00133	4.962
8.90	-0.0027	0.0088	0.00930	3.918	-0.0015	-0.0018	0.00234	4.961
9.90	0.0024	0.0084	0.00876	3.918	-0.0014	-0.0016	0.00213	4.964

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z2	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	0.0004	0.0075	0.00751	2.925	0.0008	0.0002	0.00047	4.985
4.75	0.0014	0.0063	0.00645	3.890	0.0010	-0.0006	0.00117	4.830
3.75	0.0018	-0.0021	0.00277	3.710	-0.0011	-0.0012	0.00160	4.703
3.25	0.0031	-0.0027	0.00411	3.594	0.0028	0.0002	0.00281	4.842
2.75	0.0038	-0.0029	0.00486	3.461	0.0004	-0.0009	0.00058	4.641
2.25	0.0058	-0.0043	0.00805	3.282	-0.0017	-0.0017	0.00240	4.272
1.75	0.0109	-0.0081	0.01258	2.958	-0.0011	-0.0007	0.00130	4.032
1.25	0.0091	-0.0091	0.01218	2.637	-0.0002	-0.0023	0.00231	3.831

Z3	X-ACT	Y-ACT	TIP
1.00	0.0010	-0.0032	0.00335
7.00	-0.0024	-0.0085	0.02860

BASE THICKNESS (IN) 1.554

PROJECTILE LENGTH (IN) 16.655

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 68 PROJECTILE 85

INSPECTION DATE 9/16/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z1	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	CIA
1.90	-0.0012	0.0183	0.01834	2.988	0.0012	0.0011	0.00163	4.980
2.90	0.0025	0.0085	0.00886	3.258	-0.0026	0.0014	0.00295	5.121
3.90	-0.0012	0.0100	0.01007	3.477	-0.0029	0.0014	0.00322	5.121
4.90	-0.0034	0.0108	0.01132	3.602	0.0002	0.0013	0.00132	4.978
5.90	-0.0015	0.0110	0.01110	3.716	0.0005	0.0025	0.00255	4.954
6.90	-0.0020	0.0120	0.01217	3.831	0.0017	0.0023	0.00286	4.955
7.90	-0.0048	0.0106	0.01164	3.922	0.0016	0.0021	0.00264	4.952
8.90	-0.0066	0.0104	0.01232	3.922	0.0002	0.0021	0.00211	4.951
9.90	-0.0045	0.0101	0.01106	3.926	0.0006	0.0026	0.00267	4.981

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z2	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	CIA
5.75	-0.0083	0.0127	0.01517	3.928	0.0018	0.0035	0.00364	4.985
4.75	-0.0093	0.0107	0.01418	3.891	0.0028	0.0037	0.00464	4.890
3.75	-0.0094	0.0080	0.01250	3.712	0.0007	0.0043	0.00436	4.701
3.25	-0.0127	0.0095	0.01586	3.595	0.0007	0.0031	0.00318	4.575
2.75	-0.0147	0.0116	0.01873	3.455	0.0011	0.0035	0.00367	4.440
2.25	-0.0133	0.0113	0.01784	3.275	-0.0004	0.0031	0.00313	4.278
1.75	-0.0128	0.0131	0.01832	2.936	0.0012	0.0027	0.00295	4.099
1.25	-0.0097	0.0054	0.01110	2.608	0.0029	0.0044	0.00527	3.937

Z3	X-ACT	Y-ACT	TIP
1.00	0.0018	0.0035	0.00430
7.00	0.0234	-0.0009	0.02342

BASE THICKNESS (IN) 1.502

PROJECTILE LENGTH (IN) 16.595

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK CA-C LCT 62 PROJECTILE R1

INSPECTION DATE 9/20/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.90	0.0130	0.0102	0.01652	2.952	0.0011	0.0011	0.00156	4.984
2.90	0.0087	0.0126	0.01531	3.362	0.0030	-0.0002	0.00301	5.128
3.90	0.0090	0.0082	0.01146	3.479	0.0013	0.0003	0.00133	5.126
4.90	0.0103	0.0056	0.01172	3.602	0.0022	0.0016	0.00272	4.386
5.90	0.0054	0.0045	0.00788	3.714	0.0030	0.0002	0.00301	4.980
6.90	0.0055	0.0024	0.00742	3.831	0.0022	0.0003	0.00222	4.956
7.90	0.0032	0.0027	0.00554	3.916	0.0045	0.0010	0.00461	4.950
8.90	0.0088	0.0008	0.00884	3.918	0.0040	0.0005	0.00403	4.955
9.90	0.0094	-0.0020	0.01000	3.922	0.0022	-0.0006	0.00226	4.950

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	0.0107	-0.0025	0.01106	3.925	0.0020	-0.0001	0.00200	4.926
4.75	0.0093	-0.0080	0.01152	3.875	0.0035	0.0002	0.00391	4.890
3.75	0.0064	-0.0141	0.01543	3.687	0.0032	0.0007	0.00328	4.702
2.75	0.0015	-0.0153	0.01536	3.567	0.0030	0.0005	0.00304	4.573
2.75	-0.0050	-0.0260	0.02656	3.429	0.0034	-0.0002	0.00341	4.439
2.25	-0.0052	-0.0295	0.03000	3.245	0.0027	0.0001	0.00270	4.277
1.75	-0.0117	-0.0324	0.03445	2.910	0.0045	-0.0006	0.00454	4.094
1.25	-0.0040	-0.0259	0.02624	2.594	0.0042	0.0004	0.00431	3.391

Z3	X-ACT	Y-ACT	TIP
1.00	0.0054	0.0006	0.00544
7.00	0.0158	0.0244	0.02507

BASE THICKNESS (IN) 1.474

PROJECTILE LENGTH (IN) 16.589

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 46-C LOT 69 PROJECTILE R2

INSPECTION DATE 9/14/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.00	0.0100	0.0048	0.02047	2.911	-0.0027	-0.0012	0.00295	4.983
2.00	0.0144	0.0060	0.02555	3.362	-0.0009	-0.0002	0.00092	5.124
3.00	0.0202	0.0036	0.02062	3.482	0.0001	-0.0001	0.00014	5.125
4.00	0.0166	0.0034	0.01694	3.597	0.0	-0.0001	0.00010	4.987
5.00	0.0154	0.0022	0.01556	3.711	-0.0020	-0.0012	0.00233	4.961
6.00	0.0171	-0.0008	0.01712	3.827	-0.0015	-0.0008	0.00170	4.964
7.00	0.0151	-0.0019	0.01522	3.917	0.0002	0.0	0.00020	4.959
8.00	0.0132	-0.0041	0.01382	3.918	-0.0025	-0.0004	0.00253	4.957
9.00	0.0144	-0.0050	0.01747	3.922	0.0005	0.0008	0.00094	4.962

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	0.0134	-0.0125	0.01002	3.931	-0.0004	0.0019	0.00194	4.984
4.75	0.0138	-0.0124	0.01924	3.902	-0.0010	0.0026	0.00270	4.993
3.75	0.0150	-0.0060	0.00935	3.735	-0.0019	0.0037	0.00416	4.735
2.25	-0.0115	0.0002	0.00058	3.610	-0.0029	0.0028	0.00402	4.582
0.75	-0.0244	0.0058	0.00864	3.486	-0.0021	0.0028	0.00350	4.429
2.25	-0.0072	0.0093	0.01176	3.321	-0.0031	0.0037	0.00476	4.278
1.75	-0.0163	0.0160	0.02284	3.014	-0.0015	0.0030	0.00335	4.096
1.25	-0.0201	0.0159	0.02562	2.633	-0.0027	0.0037	0.00458	3.825

Z3	X-ACT	Y-ACT	TIP
1.00	-0.0027	0.0026	0.00375
7.00	0.0171	-0.0045	0.01769

BASE THICKNESS (IN) 1.542

PROJECTILE LENGTH (IN) 16.668

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/78 MK 66-C LCT 60 PROJECTILE B3

INSPECTION DATE 9/29/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.90	-0.0044	-0.0064	0.00777	3.074	0.0017	-0.0012	0.0010	3.074
2.90	-0.0019	-0.0042	0.00461	3.074	0.0010	0.0009	0.0010	3.074
3.90	-0.0044	-0.0085	0.00557	3.065	0.0009	0.0010	0.0010	3.065
4.90	-0.0062	-0.0117	0.01204	3.005	0.0006	0.0008	0.00100	3.005
5.90	-0.0075	-0.0154	0.01723	3.024	0.0011	0.0013	0.00121	3.024
6.90	-0.0075	-0.0149	0.01649	3.038	0.0007	0.0012	0.00101	3.038
7.90	-0.0073	-0.0175	0.01805	3.011	0.0007	0.0015	0.00100	3.011
8.90	-0.0119	-0.0200	0.02227	3.014	-0.0005	0.0014	0.00127	3.014
9.90	-0.0134	-0.0217	0.02550	3.016	0.0001	0.0013	0.00100	3.016

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	-0.0129	-0.0008	0.02507	3.016	-0.0014	0.0013	0.00101	3.016
4.75	-0.0114	-0.0152	0.02243	3.004	0.0	0.0004	0.00100	3.004
3.75	-0.0077	-0.0138	0.01520	3.007	0.0001	0.0004	0.00100	3.007
3.25	-0.0105	-0.0080	0.01320	3.050	-0.0011	0.0010	0.00100	3.050
2.75	-0.0085	0.0007	0.00833	3.021	-0.0005	0.0010	0.00100	3.021
2.25	-0.0114	-0.0012	0.01149	3.044	-0.0007	0.0031	0.00100	3.044
1.75	-0.0094	0.0010	0.00345	2.023	0.0005	0.0028	0.00100	2.023
1.25	-0.0018	0.0011	0.00211	2.600	-0.0005	0.0028	0.00100	2.600

Z3	X-ACT	Y-ACT	TIP
1.00	0.0057	0.0010	0.00543
7.00	0.0344	0.0120	0.03450

BASE THICKNESS (IN) 1.485

PROJECTILE LENGTH (IN) 16.522

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-C LCT 69 PROJECTILE B4

INSPECTION DATE 9/23/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z1	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	CIA
1.90	0.0037	0.0156	0.01595	3.008	0.0012	-0.0018	0.00214	4.981
2.90	0.0028	0.0073	0.00782	3.365	0.0020	-0.0008	0.00215	5.122
3.90	0.0044	0.0059	0.00736	3.484	0.0026	-0.0006	0.00267	5.121
4.90	0.0037	0.0015	0.00399	3.605	0.0009	-0.0010	0.00135	4.981
5.90	0.0085	0.0024	0.00883	3.720	0.0008	-0.0006	0.00100	4.751
6.90	0.0089	-0.0007	0.00893	3.834	0.0008	-0.0007	0.00106	4.953
7.90	0.0089	-0.0038	0.00968	3.922	0.0005	-0.0006	0.00078	4.950
8.90	0.0094	-0.0060	0.01115	3.924	-0.0	-0.0007	0.00070	4.949
9.90	0.0103	-0.0088	0.01355	3.925	0.0004	-0.0007	0.00081	4.950

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z2	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	CIA
5.75	0.0134	-0.0126	0.01839	3.929	0.0012	-0.0002	0.00122	4.983
4.75	0.0126	-0.0157	0.02013	3.898	0.0024	0.0009	0.00256	4.889
3.75	0.0059	-0.0146	0.01575	3.713	0.0011	-0.0001	0.00110	4.703
3.25	0.0037	-0.0114	0.01187	3.588	0.0003	0.0	0.00030	4.579
2.75	0.0010	-0.0066	0.00668	3.452	0.0013	-0.0002	0.00132	4.439
2.25	0.0014	-0.0054	0.00559	3.383	0.0017	0.0003	0.00173	4.275
1.75	-0.0017	-0.0047	0.00462	2.982	0.0014	-0.0004	0.00146	4.094
1.25	0.0002	-0.0072	0.00720	2.605	0.0023	0.0007	0.00240	3.892

Z3	X-ACT	Y-ACT	TIP
1.00	-0.0039	0.0022	0.00448
7.00	0.0010	0.0265	0.02652

BASE THICKNESS (IN) 1.496

PROJECTILE LENGTH (IN) 16.585

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 14-O LCT 49 PROJECTILE R5

INSPECTION DATE 9/24/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.30	0.0319	-0.0107	0.01345	2.920	0.0022	-0.0004	0.00124	4.944
2.50	0.0126	-0.0155	0.03410	3.360	0.0011	-0.0005	0.00171	3.121
3.50	0.0258	-0.0124	0.03228	3.481	-0.0006	-0.0008	0.00100	5.124
4.50	0.0266	-0.0092	0.02815	3.602	0.0016	-0.0001	0.00150	4.744
5.50	0.0224	-0.0092	0.02425	3.716	0.0024	-0.0006	0.00247	4.958
6.50	0.0212	-0.0074	0.02252	3.830	0.0027	-0.0013	0.00300	4.158
7.50	0.0170	-0.0055	0.01797	3.917	0.0007	-0.0015	0.00134	4.953
8.50	0.0126	-0.0047	0.01345	3.920	-0.0010	-0.0012	0.00150	4.952
9.50	0.0114	-0.0032	0.01184	3.928	-0.0015	-0.0014	0.00113	4.952

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0092	-0.0014	0.00931	3.936	0.0005	-0.0017	0.00177	4.944
4.75	0.0060	-0.0008	0.00605	3.891	0.0005	-0.0006	0.00078	4.830
3.75	-0.0025	0.0012	0.00277	3.736	-0.0012	-0.0012	0.00170	4.702
3.25	-0.0048	0.0069	0.00841	3.625	-0.0012	-0.0015	0.00214	4.979
2.75	-0.0056	0.0111	0.01242	3.486	-0.0014	-0.0019	0.00216	4.437
2.25	-0.0046	0.0083	0.00940	3.283	-0.0015	-0.0013	0.00183	4.275
1.75	-0.0052	-0.0007	0.00535	2.943	-0.0010	-0.0024	0.00250	4.072
1.25	-0.0025	-0.0009	0.00359	2.614	-0.0012	-0.0014	0.00184	3.941

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0075	-0.0037	0.00834
7.00	-0.0276	-0.0145	0.03135

BASE THICKNESS (IN) 1.526

PROJECTILE LENGTH (IN) 16.580

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 46-O LOT 70 PROJECTILE R1

INSPECTION DATE 10/13/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
21	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	-0.0047	0.0153	0.02043	2.701	0.0	-0.0005	0.00050	4.982	
2.90	0.0012	0.0270	0.02703	3.334	0.0021	-0.0006	0.00218	5.121	
3.90	0.0034	0.0210	0.02127	3.463	0.0024	-0.0023	0.00332	5.124	
4.90	0.0046	0.0178	0.01838	3.600	0.0003	-0.0001	0.00032	4.985	
5.90	0.0050	0.0072	0.00877	3.763	-0.0007	-0.0010	0.00122	4.950	
6.90	-0.0017	-0.0011	0.00202	3.994	-0.0012	-0.0008	0.00144	4.959	
7.90	-0.0019	-0.0009	0.00201	3.994	0.0003	-0.0010	0.00104	4.959	
8.90	-0.0025	-0.0009	0.00266	3.994	-0.0008	-0.0010	0.00128	4.960	
9.90	-0.0021	-0.0011	0.00237	3.994	-0.0011	-0.0013	0.00170	4.961	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
72	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0173	0.0072	0.01878	3.941	0.0004	-0.0001	0.00041	4.980	
4.75	0.0207	0.0107	0.02330	3.878	-0.0002	-0.0005	0.00054	4.890	
3.75	0.0083	0.0021	0.00856	3.672	0.0001	-0.0010	0.00100	4.702	
2.75	0.0006	0.0040	0.00404	3.536	-0.0011	-0.0008	0.00136	4.580	
2.75	-0.0055	0.0074	0.00922	3.403	-0.0017	-0.0006	0.00180	4.440	
2.25	-0.0096	0.0092	0.01330	3.226	-0.0013	-0.0012	0.00177	4.276	
1.75	-0.0202	0.0089	0.02203	2.911	0.0003	-0.0008	0.00085	4.095	
1.25	-0.0090	0.0133	0.01606	2.587	0.0004	-0.0009	0.00098	3.893	

73	X-ACT	Y-ACT	TIR
1.00	-0.0030	0.0013	0.00327
7.00	0.0153	0.0139	0.02067

BASE THICKNESS (IN) 1.623

PROJECTILE LENGTH (IN) 16.712

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 70 PROJECTILE B2

INSPECTION DATE 10/09/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
71	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0191	-0.0051	0.01977	2.894	0.0020	0.0002	0.00201	4.984
2.90	-0.0140	0.0084	0.01633	3.360	0.0019	0.0009	0.00210	5.123
3.90	-0.0135	0.0049	0.01436	3.479	0.0009	0.0006	0.00108	5.128
4.90	-0.0155	-0.0029	0.01577	3.600	-0.0002	-0.0	0.00020	4.983
5.90	-0.0138	-0.0053	0.01478	3.716	0.0007	-0.0001	0.00071	4.951
6.90	-0.0122	-0.0045	0.01309	3.830	-0.0001	-0.0006	0.00061	4.950
7.90	-0.0120	-0.0019	0.01215	3.925	-0.0003	-0.0004	0.00050	4.950
8.90	-0.0114	-0.0006	0.01142	3.928	-0.0017	-0.0	0.00170	4.948
9.90	-0.0144	-0.0002	0.01440	3.935	-0.0008	-0.0004	0.00089	4.950

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
72	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0122	0.0024	0.01243	3.945	0.0001	-0.0006	0.00061	4.983
4.75	-0.0130	0.0070	0.01476	3.909	-0.0005	-0.0	0.00050	4.883
3.75	-0.0058	0.0064	0.00864	3.727	-0.0007	-0.0006	0.00092	4.696
3.25	-0.0030	0.0011	0.00320	3.609	-0.0020	-0.0002	0.00201	4.571
2.75	0.0018	-0.0062	0.00646	3.475	-0.0008	-0.0001	0.00081	4.432
2.25	0.0038	-0.0095	0.01023	3.301	-0.0010	-0.0003	0.00104	4.271
1.75	0.0113	-0.0137	0.01776	2.985	-0.0005	-0.0006	0.00078	4.090
1.25	0.0160	-0.0103	0.01903	2.623	-0.0006	0.0002	0.00063	3.889

73	X-ACT	Y-ACT	TIR
1.00	-0.0005	-0.0013	0.00139
7.00	0.0220	-0.0089	0.02373

BASE THICKNESS (IN) 1.546

PROJECTILE LENGTH (IN) 16.662

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 70 PROJECTILE B3

INSPECTION DATE 10/14/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0082	-0.0158	0.01780	3.080	0.0003	0.0005	0.00058	4.982
2.90	0.0063	-0.0063	0.00891	3.376	-0.0001	0.0001	0.00014	5.123
3.90	-0.0074	-0.0049	0.00888	3.495	-0.0004	0.0001	0.00041	5.123
4.90	-0.0091	-0.0060	0.01090	3.612	-0.0002	0.0001	0.00022	4.983
5.90	-0.0126	-0.0038	0.01316	3.725	0.0004	-0.0014	0.00146	4.953
6.90	-0.0137	-0.0014	0.01377	3.839	0.0011	-0.0007	0.00130	4.952
7.90	-0.0147	0.0006	0.01471	3.906	0.0012	-0.0006	0.00134	4.952
8.90	-0.0155	0.0021	0.01564	3.909	-0.0009	-0.0014	0.00166	4.951
9.90	-0.0206	0.0057	0.02137	3.913	0.0004	-0.0014	0.00146	4.953

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0198	0.0083	0.02147	3.919	0.0002	0.0010	0.00102	4.982
4.75	-0.0167	0.0088	0.01888	3.868	0.0012	-0.0013	0.00177	4.888
3.75	-0.0075	-0.0050	0.00901	3.682	0.0006	-0.0012	0.00134	4.701
2.75	-0.0067	-0.0131	0.01471	3.559	-0.0008	-0.0019	0.00206	4.577
2.75	-0.0039	-0.0159	0.01637	3.419	0.0007	-0.0013	0.00148	4.437
2.25	0.0003	-0.0133	0.01330	3.222	0.0001	-0.0014	0.00140	4.276
1.75	0.0019	-0.0137	0.01383	2.881	0.0016	-0.0009	0.00184	4.095
1.25	-0.0109	-0.0076	0.01329	2.572	0.0011	-0.0015	0.00186	3.895

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0016	-0.0	0.00160
7.00	0.0103	0.0146	0.01787

BASE THICKNESS (IN) 1.473

PROJECTILE LENGTH (IN) 16.593

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 70 PROJECTILE B4

INSPECTION DATE 10/13/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
21	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0058	-0.0015	0.00599	3.015	0.0011	-0.0004	0.00117	4.983
2.90	-0.0014	-0.0019	0.00236	3.372	0.0026	0.0010	0.00279	5.123
3.90	-0.0028	0.0021	0.00350	3.492	0.0025	0.0009	0.00266	5.124
4.90	-0.0021	0.0038	0.00434	3.606	0.0002	0.0006	0.00063	4.982
5.90	-0.0013	0.0043	0.00449	3.723	-0.0007	0.0005	0.00086	4.959
6.90	0.0005	0.0036	0.00363	3.839	0.0017	0.0012	0.00208	4.957
7.90	0.0019	0.0037	0.00416	3.928	0.0	0.0010	0.00100	4.956
8.90	0.0018	0.0032	0.00376	3.933	-0.0011	0.0009	0.00142	4.955
9.90	0.0020	0.0017	0.00818	3.940	-0.0004	0.0010	0.00108	4.956

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
22	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0141	0.0016	0.01419	3.946	0.0006	0.0013	0.00143	4.983
4.75	0.0166	-0.0005	0.01661	3.892	0.0003	0.0021	0.00212	4.886
3.75	0.0100	-0.0029	0.01041	3.698	-0.0001	0.0023	0.00230	4.701
3.25	0.0065	-0.0021	0.00693	3.568	-0.0003	0.0026	0.00262	4.579
2.75	0.0008	-0.0015	0.00170	3.433	-0.0015	0.0025	0.00292	4.437
2.25	-0.0011	-0.0003	0.00114	3.248	-0.0014	0.0023	0.00269	4.277
1.75	-0.0104	-0.0010	0.01045	2.904	-0.0015	0.0020	0.00250	4.095
1.25	-0.0146	-0.0038	0.01509	2.585	-0.0001	0.0020	0.00200	3.895

23 X-ACT Y-ACT TIR

1.00	-0.0003	0.0052	0.00521
7.00	0.0003	0.0030	0.00301

BASE THICKNESS (IN) 1.508

PROJECTILE LENGTH (IN) 16.662

21 IS DISTANCE FROM BASE (IN)

22 IS DISTANCE FROM NOSE (IN)

22 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 70 PROJECTILE B5

INSPECTION DATE 10/09/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0074	0.0012	0.00750	3.038	0.0017	0.0004	0.00175	4.984
2.90	0.0152	-0.0014	0.01526	3.370	0.0017	0.0005	0.00177	5.125
3.90	0.0107	0.0011	0.01076	3.489	0.0004	0.0015	0.00155	5.125
4.90	0.0105	0.0024	0.01077	3.608	-0.0001	0.0007	0.00071	4.983
5.90	0.0086	0.0018	0.00879	3.724	-0.0004	0.0014	0.00146	4.955
6.90	0.0083	0.0019	0.00851	3.842	0.0008	0.0016	0.00179	4.955
7.90	0.0044	0.0031	0.00538	3.915	0.0010	0.0014	0.00172	4.954
8.90	0.0043	0.0042	0.00601	3.917	0.0011	0.0024	0.00264	4.955
9.90	0.0022	0.0026	0.00341	3.921	-0.0009	0.0022	0.00238	4.956

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0027	0.0005	0.00275	3.928	0.0024	0.0017	0.00294	4.984
4.75	0.0005	0.0001	0.00051	3.885	0.0004	0.0020	0.00204	4.888
3.75	-0.0112	0.0010	0.01124	3.691	0.0002	0.0016	0.00161	4.704
3.25	-0.0153	0.0041	0.01584	3.561	0.0	0.0020	0.00200	4.583
2.75	-0.0190	0.0087	0.02090	3.424	-0.0006	0.0026	0.00267	4.443
2.25	-0.0203	0.0118	0.02348	3.239	0.0005	0.0027	0.00275	4.283
1.75	-0.0269	0.0166	0.03161	2.905	0.0002	0.0028	0.00281	4.103
1.25	-0.0206	0.0129	0.02431	2.580	0.0001	0.0024	0.00240	3.903

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0027	-0.0013	0.00300
7.00	0.0010	-0.0008	0.00128

BASE THICKNESS (IN) 1.486

PROJECTILE LENGTH (IN) 16.590

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 71 PROJECTILE 81

INSPECTION DATE 10/06/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0005	-0.0166	0.01661	2.988	0.0009	0.0003	0.00095	4.982
2.90	-0.0056	-0.0034	0.00655	3.388	0.0016	0.0007	0.00175	5.121
3.90	-0.0037	-0.0062	0.00722	3.503	0.0004	0.0005	0.00064	5.120
4.90	0.0052	-0.0084	0.00988	3.613	-0.0005	0.0007	0.00086	4.982
5.90	0.0046	-0.0097	0.01074	3.731	0.0004	0.0006	0.00072	4.954
6.90	0.0067	-0.0093	0.01146	3.847	-0.0009	0.0009	0.00127	4.954
7.90	0.0080	-0.0086	0.01175	3.930	0.0010	0.0015	0.00180	4.951
8.90	0.0066	-0.0092	0.01132	3.932	0.0002	0.0016	0.00161	4.953
9.90	0.0082	-0.0101	0.01301	3.940	0.0005	0.0018	0.00187	4.954

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0076	-0.0095	0.01217	3.949	0.0012	0.0024	0.00268	4.982
4.75	0.0073	-0.0090	0.01159	3.911	0.0005	0.0015	0.00158	4.884
3.75	0.0044	-0.0077	0.00887	3.731	0.0003	0.0020	0.00202	4.699
3.25	0.0068	-0.0058	0.00894	3.611	0.0004	0.0024	0.00243	4.576
2.75	0.0107	-0.0037	0.01132	3.479	0.0006	0.0032	0.00326	4.435
2.25	0.0094	-0.0008	0.00943	3.305	-0.0003	0.0029	0.00292	4.274
1.75	0.0067	0.0049	0.00830	2.984	0.0010	0.0029	0.00307	4.094
1.25	0.0101	0.0067	0.01212	2.626	0.0006	0.0026	0.00267	3.893

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0012	0.0022	0.00251
7.00	-0.0171	-0.0133	0.02166

BASE THICKNESS (IN) 1.519

PROJECTILE LENGTH (IN) 16.656

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 71 PROJECTILE B2

INSPECTION DATE 10/09/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	-0.0168	0.0069	0.01812	2.872	-0.0	0.0002	0.00020	4.983	
2.90	-0.0105	0.0134	0.01702	3.357	-0.0012	0.0006	0.00134	5.125	
3.90	-0.0124	0.0124	0.01754	3.473	-0.0012	0.0022	0.00251	5.123	
4.90	-0.0099	0.0138	0.01698	3.594	-0.0027	-0.0014	0.00304	4.983	
5.90	-0.0070	0.0128	0.01459	3.708	-0.0024	-0.0005	0.00245	4.958	
6.90	-0.0040	0.0123	0.01293	3.828	-0.0010	-0.0006	0.00117	4.957	
7.90	-0.0036	0.0145	0.01494	3.923	-0.0014	-0.0004	0.00146	4.958	
8.90	0.0011	0.0130	0.01305	3.932	-0.0026	-0.0003	0.00262	4.957	
9.90	0.0036	0.0144	0.01484	3.941	-0.0024	-0.0010	0.00260	4.957	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0095	0.0168	0.01930	3.951	-0.0013	-0.0016	0.00206	4.984	
4.75	0.0119	0.0171	0.02083	3.916	-0.0027	-0.0013	0.00300	4.887	
3.75	0.0084	0.0060	0.01032	3.742	-0.0034	-0.0009	0.00352	4.700	
2.25	0.0062	-0.0028	0.00680	3.627	-0.0029	-0.0005	0.00294	4.577	
2.75	-0.0002	-0.0127	0.01270	3.495	-0.0042	-0.0014	0.00443	4.436	
2.25	-0.0023	-0.0179	0.01805	3.324	-0.0032	-0.0012	0.00342	4.276	
1.75	-0.0040	-0.0250	0.02532	3.018	-0.0035	-0.0016	0.00385	4.095	
1.25	-0.0061	-0.0314	0.03199	2.641	-0.0040	-0.0015	0.00427	3.894	

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0056	-0.0031	0.00640
7.00	0.0021	0.0206	0.02071

BASE THICKNESS (IN) 1.611

PROJECTILE LENGTH (IN) 16.666

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/39 MK 66-0 LOT 71 PROJECTILE B3

INSPECTION DATE 10/09/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0140	0.0014	0.01407	2.881	-0.0010	-0.0001	0.00100	4.984
2.90	0.0167	-0.0040	0.01717	3.363	0.0001	-0.0011	0.00110	5.124
3.90	0.0178	-0.0015	0.01786	3.481	-0.0016	-0.0016	0.00226	5.123
4.90	0.0162	-0.0010	0.01623	3.598	-0.0012	-0.0002	0.00122	4.985
5.90	0.0165	-0.0002	0.01650	3.713	-0.0	-0.0006	0.00060	4.959
6.90	0.0180	0.0021	0.01812	3.828	-0.0015	-0.0012	0.00192	4.956
7.90	0.0167	0.0037	0.01710	3.915	-0.0011	-0.0005	0.00121	4.958
8.90	0.0148	0.0067	0.01625	3.915	-0.0029	-0.0005	0.00294	4.956
9.90	0.0159	0.0089	0.01822	3.923	-0.0017	-0.0003	0.00173	4.954

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0152	0.0093	0.01782	3.932	-0.0019	-0.0013	0.00230	4.984
4.75	0.0108	0.0097	0.01452	3.900	-0.0016	-0.0006	0.00171	4.885
3.75	0.0066	0.0112	0.01300	3.729	-0.0026	-0.0016	0.00305	4.699
3.25	0.0104	0.0113	0.01536	3.610	-0.0018	-0.0014	0.00228	4.579
2.75	0.0146	0.0106	0.01804	3.480	-0.0021	-0.0015	0.00258	4.437
2.25	0.0151	0.0106	0.01845	3.312	-0.0015	-0.0013	0.00198	4.276
1.75	0.0159	0.0124	0.02016	3.005	-0.0008	-0.0014	0.00161	4.095
1.25	0.0144	0.0112	0.01824	2.631	-0.0011	-0.0011	0.00156	3.894

Z3	X-ACT	Y-ACT	TIR
1.00	0.0021	0.0007	0.00221
7.00	0.0226	-0.0120	0.02559

BASE THICKNESS (IN) 1.593

PROJECTILE LENGTH (IN) 16.655

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 71 PROJECTILE B4

INSPECTION DATE 10/12/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0069	0.0078	0.01041	3.028	-0.0010	-0.0001	0.00100	4.982
2.90	-0.0033	0.0077	0.00838	3.379	0.0009	0.0003	0.00095	5.123
3.90	-0.0043	0.0054	0.00690	3.498	0.0004	0.0003	0.00050	5.121
4.90	-0.0057	0.0073	0.00926	3.616	-0.0015	-0.0002	0.00151	4.983
5.90	-0.0050	0.0070	0.00860	3.733	-0.0002	0.0003	0.00036	4.953
6.90	-0.0021	0.0065	0.00683	3.854	-0.0011	0.0005	0.00121	4.951
7.90	-0.0004	0.0058	0.00581	3.934	-0.0003	-0.0	0.00030	4.952
8.90	-0.0006	0.0059	0.00593	3.935	-0.0006	0.0006	0.00085	4.950
9.90	0.0032	0.0030	0.00439	3.943	0.0002	0.0012	0.00122	4.952

22	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0094	0.0009	0.00944	3.943	-0.0004	0.0011	0.00117	4.983
4.75	0.0069	-0.0012	0.00700	3.891	-0.0018	0.0005	0.00187	4.886
3.75	-0.0005	-0.0019	0.00196	3.780	-0.0017	0.0015	0.00227	4.700
3.25	-0.0053	0.0042	0.00676	3.667	-0.0011	0.0016	0.00194	4.577
2.75	-0.0085	0.0091	0.01245	3.505	-0.0015	0.0005	0.00158	4.434
2.23	-0.0137	0.0151	0.02039	3.249	-0.0017	0.0003	0.00173	4.273
1.75	-0.0236	0.0210	0.03159	2.872	-0.0007	0.0010	0.00122	4.093
1.25	-0.0052	0.0059	0.00786	2.605	-0.0011	0.0015	0.00186	3.893

23 X-ACT Y-ACT TIR

1.00	-0.0024	-0.0005	0.00245
7.00	0.0020	-0.0009	0.00219

BASE THICKNESS (IN) 1.510

PROJECTILE LENGTH (IN) 16.647

21 IS DISTANCE FROM BASE (IN)

22 IS DISTANCE FROM NOSE (IN)

23 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-O LOT 71 PROJECTILE B5

INSPECTION DATE 10/09/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	-0.0072	0.0075	0.01040	2.987	0.0001	0.0004	0.00041	4.984	
2.90	-0.0063	0.0045	0.00774	3.373	-0.0005	0.0004	0.00064	5.125	
3.90	-0.0027	0.0050	0.00568	3.487	-0.0007	0.0006	0.00092	5.123	
4.90	0.0006	0.0069	0.00693	3.602	-0.0028	0.0001	0.00280	4.985	
5.90	0.0058	0.0083	0.01013	3.718	0.0004	0.0007	0.00081	4.959	
6.90	0.0063	0.0098	0.01165	3.835	-0.0002	0.0016	0.00161	4.958	
7.90	0.0073	0.0107	0.01295	3.926	-0.0019	0.0007	0.00202	4.957	
8.90	0.0092	0.0116	0.01481	3.928	-0.0005	0.0009	0.00103	4.958	
9.90	0.0087	0.0117	0.01458	3.929	-0.0011	0.0013	0.00170	4.959	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0116	0.0115	0.01633	3.932	-0.0011	0.0011	0.00156	4.983	
4.75	0.0090	0.0089	0.01266	3.892	-0.0001	0.0015	0.00150	4.886	
3.75	0.0103	0.0077	0.01286	3.701	-0.0012	0.0019	0.00225	4.700	
3.25	0.0125	0.0134	0.01833	3.574	-0.0016	0.0016	0.00226	4.577	
2.75	0.0133	0.0146	0.01975	3.434	-0.0018	0.0015	0.00234	4.438	
2.25	0.0123	0.0139	0.01856	3.256	-0.0014	0.0016	0.00213	4.271	
1.75	0.0100	0.0124	0.01593	2.935	-0.0002	0.0009	0.00092	4.092	
1.25	0.0098	0.0018	0.00996	2.598	0.0008	0.0021	0.00225	3.890	

Z3 X-ACT Y-ACT TIR

1.00 -0.0020 0.0052 0.00557
7.00 -0.0088 0.0283 0.02964

BASE THICKNESS (IN) 1.559

PROJECTILE LENGTH (IN) 16.650

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 72 PROJECTILE B1

INSPECTION DATE 10/14/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	-0.0112	-0.0037	0.01180	2.949	0.0027	-0.0004	0.00273	4.984	
2.90	-0.0053	-0.0087	0.01019	3.368	0.0012	0.0001	0.00120	5.122	
3.90	-0.0116	-0.0092	0.01481	3.488	-0.0	0.0005	0.00050	5.120	
4.90	-0.0148	-0.0085	0.01707	3.604	0.0004	0.0002	0.00045	4.982	
5.90	-0.0172	-0.0060	0.01822	3.722	0.0001	-0.0005	0.00051	4.958	
6.90	-0.0176	-0.0030	0.01785	3.832	0.0015	-0.0	0.00150	4.959	
7.90	-0.0182	-0.0034	0.01851	3.932	0.0007	-0.0009	0.00114	4.959	
8.90	-0.0182	0.0016	0.01827	3.927	0.0001	-0.0005	0.00051	4.959	
9.90	-0.0171	0.0044	0.01766	3.931	-0.0002	-0.0001	0.00022	4.960	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	-0.0142	0.0072	0.01592	3.937	-0.0013	-0.0002	0.00132	4.980	
4.75	-0.0101	0.0081	0.01295	3.902	-0.0004	-0.0004	0.00057	4.880	
3.75	-0.0041	0.0073	0.00837	3.720	-0.0013	-0.0004	0.00136	4.704	
3.25	-0.0025	0.0126	0.01285	3.596	-0.0028	0.0005	0.00284	4.583	
2.75	0.0023	0.0181	0.01825	3.463	-0.0015	-0.0003	0.00153	4.441	
2.25	0.0025	0.0174	0.01758	3.292	-0.0024	0.0003	0.00242	4.277	
1.75	0.0035	0.0285	0.02871	2.982	-0.0019	-0.0005	0.00196	4.097	
1.25	0.0095	0.0192	0.02142	2.616	-0.0012	0.0002	0.00122	3.897	

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0069	-0.0028	0.00745
7.00	-0.0092	-0.0023	0.00948

BASE THICKNESS (IN) 1.528

PROJECTILE LENGTH (IN) 16.661

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

4/38 MK 46-0 LOT 72 PROJECTILE B2

INSPECTION DATE 10/08/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
71	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0072	0.0169	0.01837	2.911	0.0019	-0.0002	0.00191	4.995
2.90	-0.0082	0.0266	0.02784	3.365	0.0023	-0.0020	0.00305	5.124
3.90	-0.0075	0.0206	0.02192	3.485	0.0032	-0.0011	0.00338	5.124
4.90	-0.0109	0.0171	0.02028	3.605	0.0011	-0.0002	0.00112	4.983
5.90	-0.0097	0.0129	0.01614	3.717	0.0010	0.0002	0.00102	4.960
6.90	-0.0088	0.0118	0.01472	3.835	0.0014	-0.0001	0.00140	4.960
7.90	-0.0104	0.0077	0.01294	3.920	0.0018	0.0003	0.00182	4.961
8.90	-0.0075	0.0049	0.00896	3.921	0.0008	0.0006	0.00100	4.962
9.90	-0.0082	0.0001	0.00820	3.925	0.0021	0.0008	0.00225	4.963

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
72	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0080	-0.0038	0.00886	3.931	0.0012	0.0007	0.00139	4.982
4.75	-0.0080	-0.0039	0.00890	3.892	0.0007	0.0001	0.00071	4.889
3.75	-0.0025	-0.0033	0.00414	3.712	0.0023	0.0017	0.00286	4.702
3.25	0.0025	-0.0042	0.00489	3.589	0.0010	0.0014	0.00172	4.579
2.75	0.0056	-0.0105	0.01190	3.452	0.0012	0.0010	0.00156	4.438
2.25	0.0092	-0.0142	0.01692	3.275	0.0018	0.0019	0.00262	4.274
1.75	0.0127	-0.0123	0.01768	2.961	0.0016	0.0012	0.00200	4.093
1.25	0.0042	-0.0027	0.00499	2.613	0.0005	0.0019	0.00196	3.991

73	X-ACT	Y-ACT	TIR
1.00	-0.0009	0.0001	0.00091
7.00	-0.0236	-0.0040	0.02394

BASE THICKNESS (IN) 1.478

PROJECTILE LENGTH (IN) 16.655

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 72 PROJECTILE B3

INSPECTION DATE 10/12/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0064	0.0041	0.00760	2.875	0.0002	-0.0014	0.00141	4.984
2.90	-0.0024	0.0061	0.00656	3.352	-0.0006	-0.0020	0.00209	5.122
3.90	-0.0019	0.0047	0.00507	3.473	0.0013	-0.0011	0.00170	5.121
4.90	0.0007	0.0013	0.00149	3.591	-0.0019	-0.0014	0.00236	4.982
5.90	0.0016	0.0001	0.00160	3.710	-0.0018	-0.0026	0.00316	4.960
6.90	0.0022	-0.0013	0.00256	3.825	-0.0011	-0.0018	0.00211	4.959
7.90	0.0068	-0.0029	0.00739	3.920	0.0	-0.0017	0.00170	4.959
9.90	0.0048	-0.0053	0.00715	3.923	-0.0026	-0.0015	0.00300	4.959
9.90	0.0087	-0.0073	0.01136	3.929	-0.0029	-0.0020	0.00352	4.961

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0148	-0.0110	0.01844	3.936	-0.0021	-0.0017	0.00270	4.982
4.75	0.0117	-0.0133	0.01771	3.898	0.0023	0.0	0.00230	4.891
2.75	0.0045	-0.0110	0.01188	3.708	-0.0055	-0.0027	0.00613	4.702
3.25	0.0078	-0.0043	0.00574	3.587	-0.0040	-0.0019	0.00443	4.580
2.75	0.0051	0.0015	0.00532	3.455	-0.0036	-0.0018	0.00407	4.437
2.25	0.0036	0.0055	0.00657	3.288	-0.0034	-0.0012	0.00361	4.273
1.75	0.0015	0.0117	0.01180	2.979	-0.0035	-0.0018	0.00394	4.091
1.25	-0.0086	0.0134	0.01592	2.599	-0.0027	-0.0012	0.00295	3.899

Z3 X-ACT Y-ACT TIR

1.00 -0.0091 -0.0031 0.00961
7.00 -0.0092 -0.0021 0.00944

BASE THICKNESS (IN) 1.540

PROJECTILE LENGTH (IN) 16.660

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/98 WK 46-0 LOT 72 PROJECTILE 84

INSPECTION DATE 10/14/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0103	-0.0008	0.01033	2.999	-0.0010	-0.0014	0.00172	4.984
2.90	-0.0178	0.0143	0.02283	3.375	0.0017	-0.0014	0.00220	5.121
3.90	-0.0102	0.0049	0.01132	3.496	0.0010	-0.0005	0.00112	5.122
4.90	-0.0086	0.0037	0.00936	3.609	0.0003	-0.0005	0.00058	4.984
5.90	-0.0055	0.0022	0.00592	3.725	0.0011	-0.0009	0.00142	4.953
6.90	-0.0034	0.0040	0.00525	3.839	0.0025	-0.0006	-0.00257	4.952
7.90	-0.0019	0.0033	0.00381	3.925	0.0012	-0.0002	0.00122	4.952
8.90	-0.0003	0.0022	0.00222	3.925	0.0010	0.0002	0.00102	4.951
9.90	0.0008	0.0027	0.00282	3.925	0.0005	-0.0002	0.00054	4.951

72	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0065	0.0017	0.00672	3.926	0.0014	0.0007	0.00157	4.982
4.75	0.0041	0.0009	0.00420	3.877	0.0015	0.0016	0.00219	4.881
3.75	0.0027	-0.0007	0.00279	3.721	-0.0001	0.0017	0.00170	4.694
2.25	-0.0023	0.0023	0.00325	3.588	-0.0006	0.0012	0.00134	4.573
2.75	-0.0036	0.0062	0.00717	3.425	-0.0004	0.0012	0.00126	4.431
2.25	-0.0050	0.0050	0.00707	3.185	0.0	0.0010	0.00100	4.269
1.75	-0.0125	0.0051	0.01350	2.804	0.0005	0.0011	0.00121	4.089
1.25	-0.0122	-0.0053	0.01330	2.571	0.0006	0.0012	0.00134	3.898

73	X-ACT	Y-ACT	TIR
1.00	-0.0002	0.0022	0.00221
7.00	0.0010	0.0007	0.00122

BASE THICKNESS (IN) 1.523

PROJECTILE LENGTH (IN) 14.656

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 72 PROJECTILE B5

INSPECTION DATE 10/06/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0068	-0.0023	0.00718	2.960	0.0024	-0.0004	0.00243	4.985
2.90	0.0046	0.0006	0.00464	3.368	0.0022	0.0001	0.00220	5.124
3.90	-0.0038	0.0001	0.00380	3.482	0.0028	-0.0005	0.00284	5.125
4.90	-0.0062	-0.0012	0.00632	3.597	-0.0013	-0.0002	0.00132	4.982
5.90	-0.0054	-0.0023	0.00587	3.714	-0.0004	0.0005	0.00064	4.963
6.90	-0.0065	-0.0037	0.00748	3.830	0.0014	0.0004	0.00146	4.965
7.90	-0.0043	-0.0034	0.00548	3.925	0.0006	0.0001	0.00061	4.964
8.90	-0.0072	-0.0039	0.00819	3.926	-0.0001	0.0003	0.00032	4.965
9.90	-0.0087	-0.0063	0.01074	3.935	-0.0003	0.0003	0.00042	4.966

22	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0051	-0.0084	0.00983	3.938	-0.0001	0.0006	0.00061	4.981
4.75	-0.0034	-0.0061	0.00698	3.892	-0.0004	0.0014	0.00146	4.894
3.75	-0.0088	-0.0008	0.00884	3.759	0.0001	0.0019	0.00190	4.706
3.25	-0.0081	0.0045	0.00927	3.638	0.0	0.0012	0.00120	4.584
2.75	-0.0075	0.0059	0.01242	3.480	-0.0013	0.0011	0.00170	4.444
2.25	-0.0135	0.0130	0.01874	3.243	-0.0007	0.0009	0.00114	4.281
1.75	-0.0206	0.0138	0.02480	2.869	0.0002	0.0019	0.00191	4.098
1.25	0.0017	0.0075	0.00769	2.588	-0.0012	0.0012	0.00170	3.895

23	X-ACT	Y-ACT	TIR
1.00	-0.0045	0.0096	0.01060
7.00	0.0124	0.0200	0.02353

BASE THICKNESS (IN) 1.493

PROJECTILE LENGTH (IN) 16.660

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

4/3R MK 66-0 LOT 73 PROJECTILE B1

INSPECTION DATE 10/05/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	-0.0053	0.0060	0.00801	2.938	-0.0004	0.0013	0.00136	4.983	
2.90	-0.0031	0.0066	0.00729	3.372	0.0005	0.0013	0.00139	5.125	
3.90	-0.0052	0.0073	0.00896	3.493	0.0009	0.0019	0.00210	5.124	
4.90	-0.0064	0.0081	0.00818	3.608	-0.0004	0.0022	0.00224	4.981	
5.90	-0.0071	0.0065	0.00963	3.721	-0.0001	-0.0003	0.00032	4.955	
6.90	-0.0024	0.0079	0.00826	3.839	0.0025	0.0004	0.00253	4.956	
7.90	-0.0033	0.0083	0.00893	3.927	0.0001	0.0	0.00010	4.954	
8.90	-0.0043	0.0092	0.01016	3.927	0.0004	0.0015	0.00155	4.954	
9.90	-0.0033	0.0091	0.00968	3.931	0.0009	0.0019	0.00210	4.955	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	-0.0040	0.0083	0.00921	3.938	0.0027	0.0024	0.00361	4.984	
4.75	-0.0015	0.0106	0.01071	3.902	0.0023	0.0030	0.00378	4.884	
3.75	-0.0022	0.0167	0.01684	3.761	0.0012	0.0031	0.00332	4.698	
2.75	-0.0024	0.0158	0.01598	3.644	-0.0008	0.0027	0.00282	4.578	
2.75	-0.0019	0.0125	0.01264	3.489	0.0014	0.0033	0.00358	4.435	
2.25	-0.0025	0.0137	0.01393	3.243	0.0018	0.0036	0.00402	4.274	
1.75	0.0015	0.0141	0.01418	2.865	0.0012	0.0044	0.00456	4.092	
1.25	0.0031	0.0028	0.00418	2.585	0.0017	0.0045	0.00481	3.891	

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0004	0.0021	0.00214
7.00	0.0059	-0.0084	0.01026

BASE THICKNESS (IN) 1.526

PROJECTILE LENGTH (IN) 16.656

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 65-0 LOT 73 PROJECTILE B2

INSPECTION DATE 10/15/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	0.0045	0.0118	0.01263	2.979	0.0018	0.0021	0.00277	4.982	
2.90	-0.0039	0.0095	0.01027	3.380	0.0010	0.0016	0.00189	5.123	
3.90	-0.0020	0.0109	0.01108	3.493	0.0009	0.0017	0.00192	5.122	
4.90	0.0023	0.0107	0.01094	3.609	-0.0022	0.0026	0.00341	4.983	
5.90	0.0026	0.0104	0.01072	3.722	-0.0009	0.0028	0.00294	4.960	
6.90	0.0054	0.0121	0.01325	3.839	-0.0008	0.0023	0.00244	4.960	
7.90	0.0060	0.0102	0.01183	3.928	-0.0030	0.0028	0.00410	4.959	
8.90	0.0036	0.0093	0.00997	3.935	-0.0022	0.0031	0.00380	4.958	
9.90	0.0042	0.0075	0.00860	3.942	-0.0033	0.0031	0.00453	4.959	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0039	0.0053	0.00658	3.945	-0.0031	0.0028	0.00418	4.983	
4.75	0.0042	0.0019	0.00461	3.896	-0.0025	0.0035	0.00430	4.889	
3.75	0.0038	-0.0019	0.00425	3.766	-0.0034	0.0035	0.00488	4.704	
3.25	-0.0012	0.0013	0.00177	3.646	-0.0040	0.0042	0.00580	4.583	
2.75	-0.0033	0.0044	0.00550	3.492	-0.0036	0.0039	0.00531	4.443	
2.25	-0.0034	0.0049	0.00596	3.261	-0.0039	0.0039	0.00552	4.282	
1.75	-0.0070	0.0055	0.00890	2.895	-0.0037	0.0040	0.00545	4.102	
1.25	-0.0177	0.0015	0.01776	2.583	-0.0031	0.0042	0.00522	3.901	

Z3 X-ACT Y-ACT TIR

1.00 -0.0105 0.0045 0.01142
7.00 -0.0183 0.0048 0.01892

BASE THICKNESS (IN) 1.547

PROJECTILE LENGTH (IN) 16.664

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 73 PROJECTILE R3

INSPECTION DATE 10/15/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
71	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0048	0.0092	0.01038	3.006	0.0007	-0.0009	0.00114	4.981
2.90	-0.0091	-0.0072	0.01160	3.390	-0.0009	-0.0010	0.00135	5.123
3.90	-0.0070	0.0008	0.00705	3.507	0.0006	-0.0003	0.00067	5.123
4.90	-0.0033	0.0044	0.00550	3.621	-0.0005	-0.0009	0.00103	4.983
5.90	-0.0001	0.0082	0.00820	3.734	-0.0021	-0.0005	0.00216	4.957
6.90	0.0015	0.0077	0.00784	3.852	-0.0013	-0.0008	0.00153	4.956
7.90	0.0013	0.0090	0.00909	3.940	-0.0028	-0.0007	0.00289	4.958
8.90	0.0008	0.0112	0.01123	3.946	-0.0032	-0.0006	0.00326	4.957
9.90	0.0050	0.0133	0.01421	3.953	-0.0044	-0.0010	0.00451	4.958

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
22	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0090	0.0139	0.01656	3.954	-0.0010	-0.0013	0.00164	4.981
4.75	0.0092	0.0111	0.01442	3.905	-0.0007	-0.0016	0.00175	4.888
3.75	0.0070	0.0064	0.00948	3.777	-0.0015	-0.0012	0.00192	4.703
3.25	0.0005	0.0018	0.00187	3.660	-0.0026	-0.0011	0.00282	4.581
2.75	-0.0064	-0.0015	0.00657	3.504	-0.0035	-0.0012	0.00370	4.439
2.25	-0.0115	-0.0059	0.01293	3.267	-0.0033	-0.0016	0.00367	4.275
1.75	-0.0151	-0.0053	0.01773	2.896	-0.0026	-0.0018	0.00316	4.102
1.25	-0.0039	-0.0108	0.01148	2.606	-0.0028	-0.0021	0.00350	3.903

23	X-ACT	Y-ACT	TIR
1.00	-0.0066	0.0016	0.00679
7.00	-0.0136	0.0246	0.02911

BASE THICKNESS (IN) 1.498

PROJECTILE LENGTH (IN) 16.665

21 IS DISTANCE FROM BASE (IN)

22 IS DISTANCE FROM NOSE (IN)

23 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 56-0 LOT 73 PROJECTILE 84

INSPECTION DATE 10/07/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0123	0.0048	0.01320	3.014	0.0005	0.0	0.00050	4.982
2.90	0.0	0.0003	0.00030	3.378	-0.0025	-0.0014	0.00287	5.123
3.90	0.0043	0.0013	0.00449	3.495	-0.0057	-0.0010	0.00579	5.125
4.90	0.0013	0.0014	0.00191	3.604	-0.0028	-0.0002	0.00281	4.983
5.90	0.0004	0.0024	0.00243	3.720	-0.0019	-0.0004	0.00194	4.958
6.90	-0.0001	0.0040	0.00400	3.836	-0.0008	-0.0009	0.00120	4.961
7.90	0.0022	0.0041	0.00465	3.928	-0.0019	-0.0004	0.00194	4.958
8.90	-0.0023	0.0062	0.00661	3.932	-0.0028	-0.0007	0.00289	4.957
9.90	-0.0022	0.0069	0.00724	3.941	-0.0032	-0.0015	0.00353	4.959

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0052	0.0063	0.00817	3.943	-0.0052	0.0063	0.00817	4.982
4.75	-0.0034	0.0062	0.00707	3.889	-0.0034	0.0062	0.00707	4.890
3.75	-0.0038	0.0065	0.00753	3.735	-0.0038	0.0065	0.00753	4.702
3.25	-0.0006	0.0078	0.00782	3.606	-0.0006	0.0078	0.00782	4.681
2.75	0.0044	0.0098	0.01074	3.447	0.0044	0.0096	0.01056	4.438
2.25	0.0076	0.0100	0.01256	3.235	0.0076	0.0100	0.01256	4.279
1.75	0.0021	0.0107	0.01090	2.876	0.0021	0.0107	0.01090	4.094
1.25	-0.0153	-0.0088	0.01765	2.574	-0.0153	-0.0088	0.01765	3.894

Z3	X-ACT	Y-ACT	TIP
1.00	-0.0081	-0.0001	0.00810
7.00	-0.0064	-0.0046	0.00789

BASE THICKNESS (IN) 1.504

PROJECTILE LENGTH (IN) 16.656

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 73 PROJECTILE 85

INSPECTION DATE 10/08/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
71	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0015	-0.0029	0.00326	2.992	0.0014	0.0010	0.00172	4.982
2.90	0.0070	-0.0107	0.01279	3.368	0.0011	0.0017	0.00202	5.124
3.90	-0.0004	-0.0161	0.01610	3.484	0.0002	0.0018	0.00181	5.123
4.90	-0.0040	-0.0216	0.02197	3.603	-0.0003	0.0017	0.00173	4.980
5.90	-0.0001	-0.0207	0.02070	3.716	0.0009	0.0017	0.00192	4.955
6.90	-0.0015	-0.0184	0.01846	3.828	0.0020	0.0029	0.00352	4.954
7.90	-0.0025	-0.0175	0.01768	3.905	0.0015	0.0023	0.00275	4.956
8.90	-0.0030	-0.0195	0.01973	3.907	0.0006	0.0029	0.00296	4.957
9.90	-0.0039	-0.0186	0.01900	3.908	0.0002	0.0031	0.00311	4.958

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
72	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0026	-0.0167	0.01690	3.911	0.0010	0.0032	0.00335	4.983
4.75	-0.0015	-0.0151	0.01517	3.877	0.0015	0.0030	0.00335	4.884
3.75	-0.0025	-0.0072	0.00762	3.688	-0.0002	0.0027	0.00271	4.699
3.25	0.0024	0.0014	0.00278	3.563	0.0006	0.0041	0.00414	4.576
2.75	0.0069	0.0050	0.00852	3.429	0.0005	0.0035	0.00354	4.433
2.25	0.0105	0.0100	0.01450	3.249	0.0007	0.0040	0.00406	4.270
1.75	0.0150	0.0148	0.02107	2.949	0.0005	0.0034	0.00344	4.089
1.25	0.0054	0.0228	0.02343	2.593	0.0004	0.0038	0.00382	3.888

73	X-ACT	Y-ACT	TIR
1.00	-0.0022	0.0036	0.00422
7.00	-0.0038	-0.0162	0.01664

BASE THICKNESS (IN) 1.498

PROJECTILE LENGTH (IN) 16.660

21 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 74 PROJECTILE R1

INSPECTION DATE 10/14/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
71	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0023	0.0023	0.00402	2.963	0.0002	-0.0001	0.00022	4.982
2.90	-0.0111	0.0044	0.01194	3.372	0.0004	-0.0007	0.00081	5.122
3.90	-0.0074	0.0062	0.00965	3.491	-0.0005	-0.0011	0.00121	5.123
4.90	-0.0075	0.0047	0.00885	3.606	-0.0014	0.0003	0.00143	4.983
5.90	-0.0068	0.0042	0.00799	3.719	-0.0017	-0.0006	0.00180	4.956
6.90	-0.0025	0.0061	0.00659	3.837	0.0	-0.0009	0.00090	4.954
7.90	-0.0002	0.0052	0.00520	3.920	0.0003	0.0006	0.00067	4.956
8.90	-0.0036	0.0059	0.00691	3.922	-0.0005	-0.0002	0.00054	4.954
9.90	-0.0028	0.0032	0.00425	3.928	-0.0017	-0.0004	0.00175	4.955

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
72	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0016	0.0029	0.00331	3.937	-0.0007	-0.0	0.00070	4.982
4.75	0.0010	0.0008	0.00128	3.899	-0.0007	0.0	0.00070	4.883
3.75	-0.0036	0.0024	0.00433	3.752	-0.0017	-0.0006	0.00180	4.698
3.25	-0.0019	0.0066	0.00697	3.630	-0.0014	-0.0005	0.00149	4.576
2.75	0.0031	0.0083	0.00886	3.510	-0.0022	0.0001	0.00220	4.434
2.25	0.0008	0.0115	0.01153	3.331	-0.0023	-0.0002	0.00231	4.273
1.75	-0.0010	0.0129	0.01294	2.987	-0.0025	-0.0009	0.00266	4.091
1.25	0.0013	0.0189	0.01894	2.638	-0.0007	-0.0004	0.00091	3.890

73	X-ACT	Y-ACT	TIR
1.00	-0.0058	0.0009	0.00587
7.00	-0.0064	0.0021	0.00674

BASE THICKNESS (IN) 1.535

PROJECTILE LENGTH (IN) 16.680

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 74 PROJECTILE R2

INSPECTION DATE 10/13/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
71	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0017	-0.0010	0.00197	2.960	0.0002	-0.0001	0.00022	4.982
2.90	-0.0026	-0.0016	0.00305	3.378	0.0030	0.0009	0.00313	5.121
3.90	-0.0040	0.0015	0.00427	3.493	0.0032	0.0019	0.00372	5.125
4.90	-0.0053	0.0033	0.00624	3.607	0.0020	0.0002	0.00201	4.983
5.90	-0.0052	0.0012	0.00534	3.721	0.0019	0.0017	0.00255	4.958
6.90	-0.0031	0.0009	0.00323	3.839	0.0037	0.0013	0.00392	4.958
7.90	-0.0042	0.0002	0.00420	3.937	0.0035	0.0015	0.00381	4.959
8.90	-0.0057	-0.0009	0.00577	3.933	0.0021	0.0011	0.00237	4.957
9.90	-0.0049	-0.0031	0.00580	3.938	0.0023	0.0013	0.00264	4.957

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
22	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0040	-0.0045	0.00602	3.943	0.0037	0.0001	0.00370	4.983
4.75	-0.0011	-0.0049	0.00502	3.899	0.0026	0.0009	0.00275	4.889
3.75	0.0032	-0.0024	0.00400	3.744	0.0036	0.0014	0.00386	4.704
3.25	0.0062	-0.0047	0.00778	3.616	0.0033	0.0020	0.00386	4.583
2.75	0.0080	-0.0060	0.01000	3.459	0.0023	0.0016	0.00280	4.441
2.25	0.0105	-0.0036	0.01110	3.223	0.0025	0.0020	0.00320	4.282
1.75	0.0094	0.0029	0.00981	2.854	0.0027	0.0014	0.00304	4.101
1.25	0.0161	-0.0107	0.01933	2.570	0.0030	0.0011	0.00320	3.901

73 X-ACT Y-ACT TIR

1.00	-0.0008	-0.0010	0.00128
7.00	0.0034	0.0019	0.00385

BASE THICKNESS (IN) 1.575

PROJECTILE LENGTH (IN) 16.662

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 65-0 LOT 74 PROJECTILE #3

INSPECTION DATE 10/13/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
71	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0047	0.0171	0.01773	2.851	0.0014	0.0002	0.00141	4.982
2.90	-0.0053	0.0125	0.01358	3.379	0.0034	0.0017	0.00380	5.124
3.90	-0.0075	0.0116	0.01381	3.493	0.0020	0.0013	0.00239	5.124
4.90	-0.0118	0.0091	0.01490	3.607	-0.0007	0.0012	0.00139	4.982
5.90	-0.0131	0.0055	0.01421	3.723	-0.0003	0.0012	0.00124	4.959
6.90	-0.0153	0.0025	0.01550	3.840	0.0019	0.0020	0.00276	4.959
7.90	-0.0145	0.0012	0.01455	3.927	-0.0003	0.0024	0.00242	4.960
8.90	-0.0176	-0.0	0.01760	3.931	-0.0004	0.0021	0.00214	4.956
9.90	-0.0187	-0.0010	0.01873	3.931	-0.0006	0.0023	0.00238	4.956

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
72	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0173	-0.0015	0.01736	3.937	-0.0004	0.0024	0.00243	4.981
4.75	-0.0155	-0.0017	0.01559	3.911	0.0007	0.0035	0.00357	4.888
3.75	-0.0073	-0.0022	0.00762	3.728	-0.0012	0.0039	0.00408	4.701
3.25	-0.0011	-0.0063	0.00640	3.592	-0.0013	0.0038	0.00402	4.581
2.75	0.0026	-0.0090	0.00937	3.457	-0.0018	0.0034	0.00385	4.439
2.25	0.0063	-0.0083	0.01042	3.290	-0.0008	0.0038	0.00388	4.278
1.75	0.0112	-0.0062	0.01280	2.994	-0.0008	0.0038	0.00388	4.098
1.25	0.0087	-0.0043	0.00970	2.626	-0.0002	0.0041	0.00410	3.897

73 X-ACT Y-ACT TIR

1.00 -0.0024 0.0078 0.00816
7.00 -0.0054 0.0185 0.01927

BASE THICKNESS (IN) 1.619

PROJECTILE LENGTH (IN) 15.681

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 74 PROJECTILE 84

INSPECTION DATE 10/14/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0038	-0.0062	0.00727	3.006	0.0012	-0.0014	0.00184	4.982
2.90	0.0083	-0.0078	0.01139	3.382	0.0010	-0.0002	0.00102	5.124
3.90	0.0017	-0.0095	0.00965	3.500	0.0013	0.0006	0.00143	5.124
4.90	0.0006	-0.0101	0.01012	3.617	-0.0015	0.0001	0.00150	4.984
5.90	0.0006	-0.0093	0.00932	3.732	0.0009	-0.0001	0.00091	4.959
6.90	0.0028	-0.0104	0.01077	3.854	0.0008	0.0004	0.00089	4.958
7.90	-0.0011	-0.0108	0.01086	3.936	0.0015	-0.0004	0.00155	4.957
8.90	-0.0037	-0.0114	0.01199	3.940	-0.0005	-0.0002	0.00054	4.957
9.90	-0.0050	-0.0107	0.01181	3.950	-0.0004	-0.0	0.00040	4.956

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0099	-0.0116	0.01525	3.950	-0.0003	0.0004	0.00050	4.984
4.75	-0.0077	-0.0093	0.01207	3.896	-0.0004	0.0001	0.00041	4.885
3.75	-0.0081	-0.0066	0.01045	3.709	-0.0010	0.0006	0.00117	4.699
3.25	-0.0042	-0.0065	0.00774	3.591	-0.0010	0.0003	0.00104	4.578
2.75	0.0025	-0.0057	0.00622	3.454	-0.0012	-0.0001	0.00120	4.436
2.25	0.0075	-0.0046	0.00880	3.275	-0.0003	0.0005	0.00058	4.276
1.75	0.0101	-0.0012	0.01017	2.934	0.0002	-0.0001	0.00022	4.095
1.25	0.0037	-0.0054	0.00655	2.613	0.0006	0.0001	0.00061	3.894

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0028	-0.0015	0.00918
7.00	-0.0019	0.0005	0.00196

Base thickness 1.557
Length 16.665

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 74 PROJECTILE R5

INSPECTION DATE 10/13/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0065	-0.0243	0.02515	2.866	0.0001	-0.0005	0.00051	4.984
2.90	0.0036	-0.0149	0.01533	3.363	0.0007	-0.0015	0.00166	5.124
3.90	0.0009	-0.0141	0.01413	3.477	0.0013	-0.0007	0.00148	5.122
4.90	-0.0047	-0.0169	0.01754	3.602	0.0002	0.0006	0.00063	4.982
5.90	0.0059	-0.0156	0.01668	3.711	0.0004	0.0001	0.00041	4.952
6.90	0.0072	-0.0164	0.01791	3.831	0.0013	-0.0012	0.00177	4.950
7.90	0.0094	-0.0154	0.01804	3.925	0.0003	-0.0003	0.00042	4.950
8.90	0.0072	-0.0156	0.01718	3.930	-0.0	0.0003	0.00030	4.951
9.90	0.0084	-0.0172	0.01914	3.936	-0.0013	0.0002	0.00132	4.951

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0094	-0.0202	0.02229	3.942	0.0006	0.0006	0.00085	4.984
4.75	0.0086	-0.0197	0.02150	3.903	0.0007	0.0013	0.00148	4.884
3.75	0.0068	-0.0080	0.01050	3.721	-0.0003	0.0015	0.00153	4.696
2.25	0.0100	0.0023	0.01114	3.599	-0.0009	0.0010	0.00135	4.572
2.75	0.0153	0.0136	0.02047	3.464	-0.0002	0.0012	0.00122	4.431
2.25	0.0210	0.0195	0.02866	3.293	-0.0	0.0016	0.00160	4.269
1.75	0.0238	0.0273	0.03622	2.989	-0.0004	0.0013	0.00136	4.088
1.25	0.0137	0.0247	0.02824	2.620	0.0014	0.0020	0.00244	3.890

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0018	0.0026	0.00316
7.00	-0.0007	0.0028	0.00288

Base thickness 1.571

Length 16.658

GUN PROJECTILE INSPECTION DATA

5/38 MK 46-0 LOT 75 PROJECTILE R1

INSPECTION DATE 11/03/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.00	0.0080	0.0026	0.01053	3.006	0.0002	-0.0007	0.00073	4.082
2.00	0.0145	-0.0054	0.01547	3.387	0.0001	-0.0024	0.00240	5.124
3.00	0.0060	-0.0029	0.00666	3.503	-0.0024	-0.0023	0.00410	5.126
4.00	0.0021	-0.0007	0.00221	3.616	-0.0027	-0.0005	0.00275	4.086
5.00	0.0017	-0.0013	0.00214	3.731	-0.0023	-0.0009	0.00247	4.050
6.00	0.0021	-0.0020	0.00250	3.849	-0.0002	-0.0004	0.00045	4.058
7.00	0.0007	-0.0041	0.00416	3.925	0.0010	-0.0004	0.00109	4.057
8.00	-0.0024	-0.0026	0.00368	3.929	0.0011	0.0004	0.00117	4.050
9.00	-0.0024	-0.0022	0.00326	3.935	-0.0012	-0.0006	0.00134	4.058

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	-0.0045	-0.0015	0.00474	3.541	-0.0001	-0.0004	0.00041	4.086
4.75	-0.0040	-0.0004	0.00404	3.894	-0.0004	-0.0002	0.00045	4.088
3.75	0.0015	-0.0016	0.00215	3.695	-0.0005	-0.0007	0.00056	4.702
3.25	-0.0024	-0.0042	0.00452	3.543	-0.0005	-0.0002	0.00054	4.581
2.75	-0.0054	-0.0074	0.00544	3.402	0.0001	-0.0003	0.00032	4.441
2.25	0.0044	-0.0080	0.00291	3.224	-0.0007	0.0001	0.00071	4.777
1.75	-0.0027	-0.0055	0.00508	2.902	-0.0003	-0.0009	0.00135	4.005
1.25	0.0040	0.0052	0.00521	2.577	-0.0004	-0.0001	0.00041	3.084

Z3	X-ACT	Y-ACT	TIP
1.00	-0.0027	0.0028	0.00772
2.00	-0.0050	0.0050	0.00772

BASE THICKNESS (IN) 1.515

PROJECTILE LENGTH (IN) 16.462

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

WIN PROJECTILE INSPECTION DATA

3/28 MK 46-C LOT 75 PROJECTILE W2

INSPECTION DATE 10/27/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.00	0.0002	0.0111	0.01448	3.627	0.0004	-0.0001	0.00041	4.081
2.00	0.0073	0.0075	0.01067	3.374	0.0012	0.0000	0.00150	5.125
3.00	0.0004	0.0022	0.00581	3.494	0.0012	0.0002	0.00122	5.125
4.00	0.0062	-0.0006	0.00622	3.602	0.0010	0.0011	0.00100	4.083
5.00	0.0052	-0.0071	0.00980	3.721	-0.0007	0.0002	0.00073	4.059
6.00	0.0050	-0.0071	0.00523	3.834	0.0017	0.0008	0.00183	4.062
7.00	0.0055	-0.0067	0.01025	3.522	0.0004	0.0001	0.00041	4.062
8.00	0.0051	-0.0117	0.01276	3.525	0.0008	0.0007	0.00106	4.060
9.00	0.0054	-0.0123	0.01425	3.432	-0.0001	0.0001	0.00014	4.063

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	0.0050	-0.0154	0.01613	3.538	0.0009	0.0003	0.00095	4.084
4.75	0.0019	-0.0113	0.01192	3.254	0.0012	-0.0004	0.00134	4.077
3.75	0.0033	-0.0062	0.00711	3.758	-0.0005	-0.0	0.00050	4.707
3.25	0.0087	-0.0047	0.00586	3.632	-0.0001	-0.0005	0.00051	4.584
2.75	0.0092	-0.0052	0.01057	3.474	-0.0004	0.0004	0.00072	4.441
2.25	0.0115	-0.0070	0.01245	3.240	-0.0002	-0.0004	0.00045	4.770
1.75	0.0105	-0.0085	0.01274	2.849	0.0009	0.0004	0.00093	4.097
1.25	0.0050	0.0127	0.01345	2.520	-0.0011	-0.0005	0.00121	3.895

Z3	X-ACT	Y-ACT	TIP
1.00	-0.0015	0.0004	0.00182
7.00	-0.0054	0.0032	0.00562

BASE THICKNESS (IN) 1.437

PROJECTILE LENGTH (IN) 16.451

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/39 MK 56-0 LOT 75 PROJECTILE B3

INSPECTION DATE 10/23/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
71	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA	
1.90	-0.0110	-0.0226	0.02513	2.573	0.0	-0.0016	0.00160	4.990	
2.50	-0.0033	-0.0184	0.01869	3.371	0.0023	-0.0008	0.00244	5.123	
3.50	-0.0061	-0.0187	0.01867	3.490	0.0019	-0.0004	0.00124	5.127	
4.50	-0.0074	-0.0167	0.01827	3.605	-0.0005	-0.0002	0.00054	4.984	
5.50	-0.0046	-0.0157	0.01636	3.721	-0.0004	-0.0002	0.00063	4.958	
6.50	-0.0054	-0.0129	0.01440	3.837	0.0005	0.0	0.00050	4.958	
7.50	-0.0057	-0.0106	0.01204	3.919	-0.0005	0.0002	0.00063	4.952	
8.50	-0.0074	-0.0084	0.01119	3.920	-0.0014	0.0009	0.00144	4.959	
9.90	-0.0093	-0.0063	0.01123	3.925	-0.0013	0.0007	0.00148	4.962	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
72	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA	
5.75	-0.0071	-0.0070	0.00738	3.932	-0.0005	0.0013	0.00138	4.982	
4.75	-0.0062	0.0	0.00630	3.469	-0.0015	0.0015	0.00212	4.984	
3.75	-0.0039	0.0027	0.00530	3.723	-0.0035	0.0013	0.00373	4.707	
3.25	-0.0057	0.0093	0.01007	3.597	-0.0032	0.0021	0.00523	4.637	
2.75	-0.0079	0.0125	0.01476	3.466	-0.0028	0.0025	0.00375	4.448	
2.25	-0.0045	0.0139	0.01534	3.296	-0.0029	0.0009	0.00304	4.234	
1.75	-0.0043	0.0074	0.00873	2.982	-0.0026	0.0022	0.00341	4.103	
1.25	-0.0070	0.0084	0.01093	2.624	-0.0022	0.0013	0.00256	3.922	

73	X-ACT	Y-ACT	TIP
1.00	-0.0064	0.0004	0.00641
7.00	-0.0055	-0.0029	0.00617

BASE THICKNESS (IN) 1.947

PROJECTILE LENGTH (IN) 16.645

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 75 PROJECTILE R4

INSPECTION DATE 11/02/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA	
1.00	-0.0021	-0.0051	0.00552	3.022	0.0013	-0.0001	0.00130	4.032	
2.00	0.0007	-0.0059	0.00584	3.379	0.0014	0.0002	0.00141	5.122	
3.00	-0.0004	-0.0044	0.00442	3.492	0.0014	0.0006	0.00152	5.125	
4.00	0.0002	-0.0050	0.00500	3.614	-0.0016	-0.0010	0.00184	4.935	
5.00	0.0024	-0.0022	0.00405	3.732	0.0017	-0.0	0.00170	4.057	
6.00	0.0042	0.0005	0.00623	3.852	-0.0005	-0.0002	0.00054	4.056	
7.00	0.0055	-0.0004	0.00551	3.929	-0.0016	-0.0006	0.00171	4.056	
8.00	0.0042	0.0009	0.00686	3.938	-0.0041	-0.0001	0.00410	4.057	
9.00	0.0054	0.0001	0.00540	3.947	-0.0035	-0.0006	0.00355	4.057	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA	
5.75	0.0024	-0.0014	0.00278	3.950	-0.0037	0.0001	0.00370	4.032	
4.75	0.0018	0.0020	0.00269	3.891	-0.0024	0.0008	0.00253	4.032	
3.75	0.0000	0.0008	0.01105	3.700	-0.0039	0.0	0.00380	4.705	
2.75	0.0115	0.0004	0.01495	3.579	-0.0045	0.0011	0.00453	4.594	
2.75	0.0129	0.0002	0.01605	3.448	-0.0049	0.0004	0.00482	4.440	
2.25	0.0138	0.0113	0.01784	3.274	-0.0046	-0.0004	0.00462	4.380	
1.75	0.0170	0.0156	0.02307	2.944	-0.0041	0.0002	0.00418	4.032	
1.25	0.0115	0.0172	0.02069	2.618	-0.0035	0.0002	0.00350	3.000	

Z3	X-ACT	Y-ACT	TIP
1.00	-0.0052	0.0028	0.00444
7.00	-0.0062	0.0015	0.00648

BASE THICKNESS (IN) 1.511

PROJECTILE LENGTH (IN) 16.446

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/3R MK 46-0 LOT 75 PROJECTILE 05

INSPECTION DATE 10/26/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.00	0.0146	-0.0040	0.01514	2.951	-0.0012	-0.0	0.00120	4.092
2.00	0.0195	-0.0056	0.02020	3.374	0.0009	-0.0001	0.00091	5.126
3.00	0.0192	-0.0034	0.01851	3.487	0.0006	0.0012	0.00134	5.127
4.00	0.0127	-0.0033	0.01712	3.605	-0.0020	-0.0001	0.00200	4.084
5.00	0.0055	-0.0044	0.01047	3.720	-0.0004	-0.0004	0.00057	4.057
6.00	0.0096	-0.0046	0.01065	3.838	0.0013	-0.0	0.00130	4.057
7.00	0.0128	-0.0042	0.01247	3.628	0.0013	0.0002	0.00132	4.055
8.00	0.0072	-0.0051	0.00882	3.930	-0.0005	-0.0004	0.00044	4.055
9.00	0.0055	-0.0050	0.00743	3.936	-0.0011	0.0	0.00110	4.055

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0037	-0.0046	0.00590	3.946	0.0004	0.0002	0.00045	4.085
4.75	0.0052	-0.0037	0.00638	3.908	0.0020	0.0008	0.00215	4.024
3.75	-0.0035	-0.0002	0.00361	3.757	0.0003	0.0007	0.00076	4.697
3.25	0.0010	0.0045	0.00461	3.648	0.0001	0.0011	0.00110	4.574
2.75	0.0042	0.0051	0.01002	3.513	0.0013	0.0016	0.00205	4.434
2.25	0.0075	0.0083	0.01119	3.331	0.0012	0.0007	0.00130	4.374
1.75	0.0135	0.0085	0.01565	3.020	0.0030	0.0009	0.00310	4.094
1.25	0.0057	0.0122	0.01247	2.646	0.0019	0.0011	0.00220	3.851

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0011	0.0055	0.00400
7.00	-0.0019	0.0065	0.00474

BASE THICKNESS (IN) 1.570

PROJECTILE LENGTH (IN) 16.462

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 76 PROJECTILE R1

INSPECTION DATE 10/28/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.00	0.0109	0.0072	0.02173	2.907	0.0008	0.0002	0.00092	4.986
2.00	0.0104	0.0031	0.01965	2.370	0.0007	-0.0002	0.00073	5.123
3.00	0.0205	0.0040	0.02089	3.489	-0.0009	-0.0001	0.00091	5.124
4.00	0.0109	0.0034	0.02019	3.607	-0.0009	0.0004	0.00098	4.984
5.00	0.0104	0.0035	0.01971	3.722	0.0002	0.0016	0.00161	4.962
6.00	0.0171	0.0042	0.01761	3.836	0.0002	0.0018	0.00181	4.961
7.00	0.0170	0.0046	0.01848	3.926	0.0001	0.0016	0.00160	4.960
8.00	0.0160	0.0034	0.01636	3.920	-0.0005	0.0015	0.00158	4.960
9.00	0.0127	0.0039	0.01329	3.934	-0.0010	0.0022	0.00242	4.961

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	0.0004	0.0031	0.00800	3.941	-0.0010	0.0009	0.00135	4.983
4.75	0.0072	0.0025	0.00762	3.904	-0.0006	0.0014	0.00152	4.960
3.75	0.0022	0.0022	0.00356	3.770	-0.0015	0.0018	0.00241	4.707
2.75	-0.0072	0.0057	0.00654	3.647	-0.0013	0.0028	0.00200	4.986
2.75	-0.0051	0.0062	0.00811	3.486	-0.0023	0.0023	0.00325	4.415
2.25	-0.0130	0.0064	0.00749	3.244	-0.0021	0.0023	0.00211	4.784
1.75	-0.0013	0.0063	0.00643	2.859	-0.0033	0.0012	0.00251	4.105
1.25	0.0103	0.0021	0.01076	2.572	-0.0063	0.0002	0.00620	4.707

Z2 X-ACT Y-ACT TIP

1.00 -0.0080 0.0018 0.00820
7.00 -0.0184 -0.0003 0.01840

BASE THICKNESS (IN) 1.544

PROJECTILE LENGTH (IN) 14.666

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 75 PROJECTILE P2

INSPECTION DATE 11/02/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.90	0.0044	-0.0016	0.00468	2.973	0.0014	0.0002	0.00141	4.992
2.90	0.0132	-0.0105	0.01687	3.376	-0.0015	0.0	0.00150	5.122
3.90	0.0075	-0.0065	0.00992	3.492	-0.0013	0.0005	0.00139	5.127
4.90	0.0064	-0.0044	0.00442	3.608	0.0	0.0005	0.00050	4.994
5.90	0.0013	-0.0036	0.00383	3.726	0.0017	0.0009	0.00192	4.959
6.90	-0.0048	-0.0036	0.00600	3.840	0.0005	0.0012	0.00130	4.961
7.90	-0.0053	-0.0024	0.00592	3.925	0.0014	0.0013	0.00191	4.960
8.90	-0.0085	-0.0010	0.00856	3.929	-0.0018	0.0006	0.00130	4.960
9.90	-0.0109	-0.0014	0.01099	3.932	-0.0016	-0.0002	0.00161	4.961

72	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	-0.0118	-0.0023	0.01225	3.638	-0.0006	0.0015	0.00162	4.985
4.75	-0.0097	-0.0015	0.00982	3.503	-0.0009	0.0006	0.00100	4.972
3.75	-0.0062	0.0018	0.00637	3.785	-0.0020	0.0008	0.00215	4.702
3.25	-0.0076	0.0029	0.00913	3.664	-0.0017	0.0005	0.00177	4.594
2.75	-0.0060	0.0015	0.00613	3.505	-0.0012	0.0015	0.00133	4.442
2.25	-0.0053	0.0057	0.01091	3.254	-0.0020	0.0010	0.00224	4.291
1.75	-0.0114	0.0100	0.01516	2.956	-0.0007	0.0014	0.00157	4.099
1.25	-0.0017	0.0056	0.00585	2.589	-0.0006	0.0006	0.00095	3.935

73 X-ACT Y-ACT TIP

1.00 -0.0052 0.0020 0.00566
7.00 -0.0091 -0.0206 0.02252

BASE THICKNESS (IN) 1.542

PROJECTILE LENGTH (IN) 16.670

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/78 MK 44-0 LOT 74 PROJECTILE R3

INSPECTION DATE 10/23/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.00	0.0147	0.0100	0.01778	3.012	-0.0002	-0.0011	0.00112	4.084
2.00	0.0188	0.0088	0.02051	3.374	0.0017	-0.0010	0.00187	5.126
3.00	0.0130	0.0104	0.01588	3.492	0.0005	-0.0002	0.00054	5.126
4.00	0.0087	0.0101	0.01333	3.507	0.0002	-0.0001	0.00022	4.085
5.00	0.0166	0.0059	0.01190	3.720	-0.0004	-0.0010	0.00108	4.357
6.00	0.0054	0.0103	0.01329	3.834	0.0014	-0.0004	0.00146	4.056
7.00	0.0040	0.0112	0.01271	3.925	0.0005	-0.0002	0.00054	4.055
8.00	0.0040	0.0117	0.01242	3.927	-0.0001	0.0	0.00010	4.957
9.00	0.0037	0.0118	0.01237	3.930	0.0	0.0002	0.00020	4.059

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0010	0.0115	0.01166	3.934	-0.0007	0.0002	0.00073	4.084
4.75	0.0035	0.0112	0.01148	2.903	-0.0009	0.0005	0.00094	4.086
3.75	0.0009	0.0080	0.00804	3.771	-0.0016	0.0012	0.00200	4.690
3.25	-0.0017	0.0084	0.00957	3.640	-0.0013	0.0004	0.00134	4.074
2.75	-0.0040	0.0101	0.01104	3.488	-0.0011	0.0010	0.00140	4.634
2.25	-0.0023	0.0057	0.00897	3.240	-0.0018	0.0011	0.00211	4.271
1.75	0.0018	0.0058	0.00881	2.862	-0.0011	0.0008	0.00124	4.001
1.25	0.0001	0.0156	0.01906	2.577	0.0015	0.0028	0.00326	3.902

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0033	0.0044	0.00522
7.00	-0.0054	0.0024	0.00445

BASE THICKNESS (IN) 1.534

PROJECTILE LENGTH (IN) 15.661

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/39 MK 66-0 LOT 75 PROJECTILE R4

INSPECTION DATE 10/22/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.00	0.0061	-0.0054	0.00815	2.575	-0.0003	-0.0019	0.00160	4.991
2.00	0.0140	-0.0066	0.01401	3.380	0.0013	-0.0002	0.00132	5.121
3.00	0.0092	-0.0012	0.00920	3.455	0.0001	0.0002	0.00022	5.124
4.00	0.0060	-0.0041	0.00727	3.610	-0.0011	-0.0020	0.00229	4.995
5.00	0.0068	-0.0048	0.00670	3.726	-0.0009	-0.0018	0.00187	4.962
6.00	0.0044	-0.0064	0.00777	3.841	0.0007	-0.0019	0.00202	4.942
7.00	0.0034	-0.0075	0.00823	3.920	0.0010	-0.0021	0.00232	4.963
8.00	0.0114	-0.0069	0.00991	3.924	-0.0015	-0.0024	0.00283	4.962
9.00	0.0025	-0.0111	0.01129	3.927	-0.0002	-0.0019	0.00191	4.960

72	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	0.0040	-0.0122	0.01315	3.532	-0.0003	-0.0020	0.00202	4.995
4.75	0.0044	-0.0116	0.01241	3.877	-0.0009	-0.0021	0.00228	4.931
3.75	0.0007	-0.0120	0.01302	3.662	-0.0014	-0.0018	0.00222	4.707
3.25	-0.0052	-0.0102	0.01302	3.524	-0.0019	-0.0021	0.00283	4.522
2.75	-0.0197	-0.0082	0.01196	3.386	-0.0015	-0.0021	0.00258	4.446
2.25	-0.0105	-0.0029	0.01120	3.205	-0.0015	-0.0025	0.00282	4.227
1.75	-0.0080	-0.0045	0.00955	2.892	-0.0004	-0.0022	0.00234	4.106
1.25	-0.0107	0.0115	0.01521	2.570	-0.0007	-0.0025	0.00260	3.904

73	X-ACT	Y-ACT	TIP
1.00	0.0009	0.0015	0.00175
7.00	0.0012	0.0001	0.00130

BASE THICKNESS (IN) 1.511

PROJECTILE LENGTH (IN) 16.662

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 76 PROJECTILE R5

INSPECTION DATE 11/01/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
71	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	CIA	
1.90	-0.0020	0.0080	0.00851	2.945	0.0003	-0.0007	0.00074	4.924	
2.90	-0.0023	0.0065	0.00489	3.363	0.0060	-0.0002	0.00600	5.123	
3.90	-0.0051	0.0043	0.00667	3.475	0.0032	-0.0008	0.00320	5.126	
4.90	-0.0055	0.0024	0.00600	3.595	-0.0009	-0.0022	0.00238	4.992	
5.90	-0.0052	-0.0020	0.00566	3.711	0.0006	-0.0	0.00060	4.959	
6.90	-0.0020	-0.0041	0.00502	3.826	0.0018	-0.0002	0.00181	4.957	
7.90	-0.0020	-0.0065	0.00716	3.920	0.0018	-0.0001	0.00180	4.957	
9.90	-0.0020	-0.0072	0.00747	3.920	0.0015	-0.0002	0.00151	4.960	
9.90	0.0002	-0.0076	0.00760	3.923	0.0015	-0.0009	0.00134	4.959	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
72	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	CIA	
5.75	0.0024	-0.0075	0.00819	3.933	0.0023	-0.0009	0.00247	4.987	
4.75	0.0023	-0.0071	0.00746	3.902	0.0023	-0.0006	0.00238	4.932	
3.75	-0.0011	-0.0024	0.00264	3.724	0.0022	-0.0002	0.00221	4.701	
3.25	0.0002	-0.0026	0.00261	3.606	0.0011	0.0005	0.00121	4.591	
2.75	0.0064	-0.0010	0.00648	3.462	0.0022	-0.0	0.00220	4.440	
2.25	0.0121	-0.0021	0.01229	3.284	0.0014	-0.0008	0.00151	4.275	
1.75	0.0092	-0.0017	0.00937	2.992	0.0018	-0.0010	0.00206	4.084	
1.25	0.0044	0.0049	0.00659	2.628	0.0021	-0.0005	0.00216	3.831	

73	X-ACT	Y-ACT	TIP
1.00	-0.0	0.0003	0.00030
7.00	-0.0026	0.0072	0.02372

BASE THICKNESS (IN) 1.546

PROJECTILE LENGTH (IN) 16.656

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 46-C LCT 77 PROJECTILE R1

INSPECTION DATE 10/21/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.00	0.0027	-0.0074	0.00775	2.987	-0.0013	0.0005	0.00173	4.991
2.00	0.0038	-0.0138	0.01431	3.387	-0.0	-0.0010	0.00100	5.124
3.00	0.0042	-0.0089	0.00994	3.502	0.0001	-0.0007	0.00071	5.124
4.00	0.0037	-0.0029	0.00470	3.614	-0.0020	-0.0003	0.00202	4.991
5.00	0.0057	-0.0021	0.00607	3.729	-0.0027	-0.0014	0.00204	4.954
6.00	0.0044	-0.0020	0.00483	3.846	-0.0007	-0.0005	0.00024	4.954
7.00	0.0072	-0.0002	0.00720	3.950	-0.0017	-0.0004	0.00175	4.952
8.00	0.0054	-0.0003	0.00541	3.933	-0.0021	-0.0011	0.00217	4.955
9.00	0.0050	-0.0009	0.00508	3.922	-0.0030	-0.0009	0.00312	4.954

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0070	-0.0009	0.00705	3.935	-0.0010	-0.0008	0.00122	4.984
4.75	0.0072	0.0012	0.00730	3.824	-0.0014	-0.0010	0.00172	4.984
3.75	0.0045	0.0051	0.00764	3.747	-0.0024	-0.0013	0.00272	4.702
3.25	0.0039	0.0054	0.01086	3.618	-0.0023	-0.0006	0.00232	4.582
2.75	0.0051	0.0129	0.01397	3.454	-0.0012	-0.0011	0.00152	4.441
2.25	0.0009	0.0127	0.01273	3.204	-0.0027	-0.0004	0.00272	4.282
1.75	0.0012	0.0085	0.00940	2.914	-0.0024	-0.0010	0.00240	4.101
1.25	-0.0112	0.0045	0.01025	2.574	-0.0011	-0.0011	0.00152	3.901

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0001	-0.0027	0.00270
7.00	-0.0059	-0.0269	0.02691

BASE THICKNESS (IN) 1.546

PROJECTILE LENGTH (IN) 10.754

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 77 PROJECTILE R2

INSPECTION DATE 10/20/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIP	DIA
1.00	0.0025	0.0039	0.00935	2.961	0.0006	0.0008	0.00120	4.035
2.00	0.0049	-0.0041	0.00439	3.378	0.0035	-0.0018	0.00394	5.125
3.00	0.0049	-0.0035	0.00594	3.454	-0.0009	-0.0017	0.00182	5.125
4.00	0.0036	-0.0019	0.00407	3.612	0.0007	-0.0006	0.00022	4.934
5.00	0.0034	-0.0027	0.00450	3.727	-0.0008	-0.0014	0.00161	4.960
6.00	0.0024	-0.0049	0.00546	3.843	0.0012	-0.0010	0.00154	4.942
7.00	0.0015	-0.0057	0.00589	3.920	0.0002	-0.0014	0.00166	4.960
8.00	-0.0002	-0.0061	0.00610	3.933	0.0001	-0.0017	0.00170	4.940
9.00	-0.0014	-0.0066	0.00675	3.935	0.0007	-0.0026	0.00260	4.961

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	-0.0018	-0.0082	0.00842	3.838	-0.0003	-0.0021	0.00212	4.934
4.75	-0.0021	-0.0053	0.00570	3.893	0.0013	-0.0011	0.00170	4.932
3.75	-0.0051	0.0001	0.00510	3.700	0.0	-0.0019	0.00120	4.706
3.25	-0.0045	-0.0027	0.00525	3.565	0.0003	-0.0024	0.00242	4.582
2.75	-0.0054	-0.0045	0.00703	3.430	0.0010	-0.0016	0.00180	4.440
2.25	-0.0061	-0.0047	0.00770	3.252	-0.0	-0.0016	0.00160	4.730
1.75	-0.0119	-0.0055	0.01311	2.950	0.0010	-0.0021	0.00222	4.027
1.25	-0.0149	0.0047	0.01562	2.951	0.0017	-0.0015	0.00227	3.925

Z3	X-ACT	Y-ACT	TIP
1.00	0.0021	0.0032	0.00391
7.00	0.0035	0.0012	0.00370

BASE THICKNESS (IN) 1.574

PROJECTILE LENGTH (IN) 16.454

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 77 PROJECTILE R3

INSPECTION DATE 10/21/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.90	0.0054	0.0051	0.01308	2.938	0.0012	0.0003	0.00124	4.881
2.90	0.0172	-0.0051	0.01794	3.368	-0.0009	-0.0013	0.00159	5.120
3.90	0.0130	-0.0014	0.01308	3.482	-0.0023	-0.0021	0.00311	5.121
4.90	0.0103	0.0022	0.01102	3.506	-0.0021	-0.0016	0.00244	4.931
5.90	0.0054	0.0039	0.01014	3.710	-0.0015	-0.0023	0.00275	4.954
6.90	0.0051	0.0053	0.00563	3.823	-0.0005	-0.0010	0.00112	4.953
7.90	0.0077	0.0058	0.00564	3.920	-0.0004	-0.0015	0.00155	4.952
8.90	0.0054	0.0057	0.00735	3.923	-0.0021	-0.0016	0.00284	4.952
9.90	0.0049	0.0057	0.00752	3.927	-0.0012	-0.0020	0.00233	4.952

72	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	0.0054	0.0048	0.00739	3.930	-0.0012	-0.0026	0.00226	4.881
4.75	0.0052	0.0034	0.00521	3.892	-0.0008	-0.0025	0.00242	4.884
3.75	0.0041	0.0032	0.00520	3.760	-0.0015	-0.0026	0.00300	4.857
3.25	0.0044	0.0040	0.00806	3.634	-0.0019	-0.0021	0.00277	4.876
2.75	0.0091	0.0050	0.01028	3.467	-0.0034	-0.0025	0.00422	4.827
2.25	0.0052	0.0054	0.01041	3.207	-0.0018	-0.0029	0.00341	4.873
1.75	0.0085	0.0034	0.00915	2.829	-0.0015	-0.0026	0.00300	4.882
1.25	0.0079	0.0121	0.01440	2.560	-0.0014	-0.0019	0.00236	4.882

73	X-ACT	Y-ACT	TIP
1.00	-0.0052	-0.0052	0.00735
7.00	-0.0010	-0.0051	0.00532

BASE THICKNESS (IN) 1.574

PROJECTILE LENGTH (IN) 16.664

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

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GUN PROJECTILE INSPECTION DATA

5/38 MK 44-0 LOT 77 PROJECTILE R4

INSPECTION DATE 10/29/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.00	-0.0015	0.0027	0.00300	3.970	0.0012	0.0008	0.00144	4.027
2.00	0.0043	-0.0030	0.00699	3.981	-0.0017	-0.0047	0.00500	5.124
3.00	-0.0002	-0.0051	0.00511	3.994	-0.0017	-0.0031	0.00354	5.125
4.00	-0.0039	-0.0035	0.00524	3.608	-0.0022	0.0006	0.00222	4.022
5.00	-0.0031	-0.0035	0.00468	3.727	-0.0013	-0.0004	0.00124	4.050
6.00	-0.0091	-0.0047	0.01006	3.849	-0.0014	0.0000	0.00164	4.040
7.00	-0.0049	-0.0054	0.00976	3.925	-0.0017	0.0010	0.00197	4.051
8.00	-0.0103	-0.0068	0.01334	3.929	-0.0022	0.0009	0.00239	4.043
9.00	-0.0114	-0.0061	0.01297	3.928	-0.0019	0.0009	0.00210	4.040

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	-0.0114	-0.0080	0.01343	3.932	-0.0010	0.0013	0.00164	4.027
4.75	-0.0091	-0.0079	0.01206	3.987	-0.0020	0.0014	0.00240	4.027
3.75	-0.0073	-0.0053	0.00910	3.689	-0.0017	0.0013	0.00214	4.577
3.25	-0.0049	-0.0073	0.00558	3.559	-0.0035	0.0012	0.00270	4.574
2.75	0.0016	-0.0011	0.00194	3.421	-0.0026	0.0018	0.00314	4.632
2.25	0.0010	-0.0010	0.00235	3.241	-0.0013	0.0019	0.00250	4.270
1.75	0.0007	-0.0044	0.00444	2.924	-0.0013	0.0016	0.00206	4.040
1.25	0.0040	-0.0155	0.01570	2.579	-0.0008	0.0026	0.00272	3.940

Z3	X-ACT	Y-ACT	TIP
1.00	-0.0002	0.0029	0.00304
7.00	0.0177	0.0184	0.02583

BASE THICKNESS (IN) 1.567

PROJECTILE LENGTH (IN) 16.673

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/28 MK 46-0 1 CT 77 PROJECTILE R5

INSPECTION DATE 10/27/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.00	-0.0012	0.0025	0.00277	2.977	0.0005	-0.0001	0.00051	4.044	
2.00	-0.0036	0.0009	0.00365	3.380	0.0022	0.0002	0.00221	5.122	
3.00	-0.0042	0.0005	0.00422	3.457	0.0026	0.0008	0.00272	5.124	
4.00	-0.0006	-0.0020	0.00200	3.611	0.0012	-0.0005	0.00130	4.045	
5.00	0.0006	-0.0035	0.00355	3.724	0.0028	-0.0006	0.00286	4.057	
6.00	0.0031	-0.0032	0.00446	3.841	0.0027	-0.0009	0.00282	4.059	
7.00	0.0036	-0.0015	0.00300	3.926	0.0021	-0.0003	0.00212	4.057	
8.00	-0.0020	-0.0015	0.00250	3.932	0.0012	0.0004	0.00124	4.057	
9.00	-0.0007	0.0007	0.00099	3.941	0.0002	-0.0009	0.00032	4.057	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	-0.0004	0.0046	0.00464	3.044	0.0031	0.0001	0.00310	4.083	
4.75	-0.0012	0.0035	0.00354	2.904	0.0012	-0.0003	0.00124	4.085	
3.75	0.0010	0.0015	0.00242	2.761	0.0010	-0.0003	0.00104	4.700	
2.75	0.0015	-0.0025	0.00312	3.641	0.0003	-0.0004	0.00050	4.570	
2.75	0.0014	-0.0064	0.00655	3.684	0.0001	-0.0	0.00010	4.434	
2.25	0.0063	-0.0051	0.01024	3.254	0.0010	-0.0004	0.00102	4.273	
1.75	0.0115	-0.0051	0.01464	2.891	0.0006	-0.0002	0.00062	4.032	
1.25	0.0150	-0.0078	0.01771	2.572	0.0006	0.0002	0.00063	3.830	

Z3 X-ACT Y-ACT TIR

1.00 0.0009 -0.0014 0.00141
7.00 -0.0012 -0.0014 0.00191

BASE THICKNESS (IN) 1.564

PROJECTILE LENGTH (IN) 16.472

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/39 MK 44-D LOT 78 PROJECTILE B1

INSPECTION DATE 10/23/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.00	-0.0030	-0.0154	0.01584	2.856	0.0019	0.0003	0.00192	4.086
2.00	-0.0070	-0.0072	0.01004	3.370	0.0030	-0.0013	0.00227	5.122
3.00	-0.0062	-0.0065	0.01052	3.480	0.0022	-0.0001	0.00220	5.123
4.00	-0.0070	-0.0102	0.01227	3.606	0.0022	0.0015	0.00266	4.985
5.00	-0.0067	-0.0101	0.01332	3.721	0.0020	0.0016	0.00266	4.950
6.00	-0.0069	-0.0105	0.01436	3.841	0.0014	0.0007	0.00157	4.243
7.00	-0.0112	-0.0100	0.01501	3.932	0.0013	0.0012	0.00177	4.240
8.00	-0.0104	-0.0100	0.01443	3.934	0.0009	0.0018	0.00201	4.249
9.00	-0.0083	-0.0100	0.01370	3.942	0.0007	0.0016	0.00175	4.247

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0056	-0.0100	0.01161	3.648	0.0010	0.0014	0.00172	4.077
6.75	-0.0040	-0.0077	0.00912	3.904	0.0004	0.0017	0.00130	4.890
3.75	-0.0063	-0.0032	0.00707	3.772	-0.0001	0.0015	0.00152	4.404
3.25	-0.0054	-0.0001	0.00540	3.651	-0.0018	0.0010	0.00262	4.672
2.75	-0.0048	0.0001	0.00490	3.486	-0.0006	0.0025	0.00257	4.432
2.25	-0.0055	0.0013	0.00565	3.237	-0.0009	0.0022	0.00242	4.271
1.75	-0.0060	0.0150	0.02262	2.938	-0.0003	0.0020	0.00219	4.013
1.25	0.0110	-0.0080	0.01160	2.690	0.0004	0.0034	0.00242	3.801

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0017	0.0032	0.00416
2.00	0.0054	0.0274	0.02827

BASE THICKNESS (IN) 1.509

PROJECTILE LENGTH (IN) 16.711

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/28 MK 66-0 LOT 79 PROJECTILE B2

INSPECTION DATE 10/22/70

	(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)			
21	X-ACT	Y-ACT	TIP	DIA		X-ACT	Y-ACT	TIP	DIA
1.00	0.0217	-0.0353	0.04402	2.485	-0.0006	-0.0011	0.00135	4.270	
2.00	0.0290	-0.0134	0.03154	3.248	-0.0002	-0.0021	0.00211	5.123	
3.00	0.0057	-0.0102	0.01341	3.496	-0.0029	-0.0015	0.00325	5.124	
4.00	-0.0055	-0.0043	0.00788	3.651	-0.0012	-0.0015	0.00182	4.082	
5.00	-0.0054	-0.0029	0.00504	3.750	-0.0023	-0.0009	0.00247	4.052	
6.00	-0.0030	-0.0054	0.00565	3.981	-0.0012	-0.0007	0.00130	4.050	
7.00	0.0036	-0.0134	0.01388	3.934	-0.0019	-0.0002	0.00181	4.061	
8.00	0.0030	-0.0137	0.01402	3.935	-0.0028	-0.0006	0.00286	4.060	
9.00	0.0031	-0.0145	0.01574	3.928	-0.0008	-0.0001	0.00081	4.063	

	(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)			
22	X-ACT	Y-ACT	TIP	DIA		X-ACT	Y-ACT	TIP	DIA
5.75	0.0153	-0.0154	0.02502	3.521	-0.0013	-0.0013	0.00134	4.082	
4.75	0.0120	-0.0155	0.02017	3.873	-0.0025	-0.0004	0.00253	4.031	
3.75	0.0111	-0.0143	0.01910	3.725	-0.0020	-0.0002	0.00201	4.705	
2.75	0.0058	-0.0050	0.01071	3.616	-0.0023	-0.0002	0.00321	4.023	
2.75	0.0124	-0.0024	0.00368	3.482	-0.0035	0.0002	0.00351	4.442	
2.25	-0.0014	0.0001	0.00140	3.287	-0.0029	-0.0001	0.00390	4.231	
1.75	-0.0145	0.0012	0.00474	2.547	-0.0034	-0.0002	0.00341	4.101	
1.25	-0.0034	0.0065	0.00342	2.621	-0.0034	-0.0001	0.00340	3.028	

23	X-ACT	Y-ACT	TIP
1.00	-0.0014	-0.0007	0.00157
7.00	-0.0137	0.0064	0.01421

BASE THICKNESS (IN) 1.547

PROJECTILE LENGTH (IN) 16.661

21 IS DISTANCE FROM BASE (IN)

22 IS DISTANCE FROM NOSE (IN)

23 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/30 WK 66-0 LOT 78 PROJECTILE R3

INSPECTION DATE 10/30/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
71	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.00	-0.0000	0.0180	0.02701	2.920	-0.0002	0.0003	0.00037	4.991	
2.00	-0.0019	0.0072	0.02305	2.363	0.0001	0.0006	0.00061	5.122	
3.00	-0.0001	0.0082	0.02171	2.480	0.0002	0.0005	0.00054	5.124	
4.00	-0.0147	0.0079	0.01843	3.601	-0.0004	-0.0006	0.00072	4.992	
5.00	-0.0149	0.0059	0.01787	2.715	-0.0011	0.0002	0.00112	4.956	
6.00	-0.0130	0.0015	0.01399	2.831	-0.0014	-0.0003	0.00143	4.957	
7.00	-0.0107	0.0012	0.01067	2.924	-0.0017	0.0004	0.00175	4.957	
8.00	-0.0092	-0.0012	0.00929	2.929	-0.0013	0.0004	0.00136	4.957	
9.00	-0.0059	-0.0023	0.00596	2.938	-0.0018	0.0004	0.00184	4.957	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
72	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	-0.0029	-0.0040	0.00498	2.940	-0.0005	0.0002	0.00054	4.992	
4.75	-0.0009	-0.0044	0.00449	2.910	-0.0026	0.0003	0.00262	4.996	
3.75	0.0059	0.0005	0.00582	2.725	-0.0022	0.0007	0.00231	4.701	
2.75	0.0101	0.0009	0.01014	2.602	-0.0024	0.0008	0.00253	4.570	
2.75	0.0143	-0.0036	0.01475	2.472	-0.0026	0.0002	0.00261	4.437	
2.25	0.0164	-0.0064	0.01769	2.299	-0.0024	0.0005	0.00265	4.276	
1.75	0.0202	-0.0093	0.02024	2.993	-0.0013	0.0018	0.00222	4.024	
1.25	0.0169	-0.0059	0.01791	2.632	-0.0014	0.0015	0.00205	2.122	

73	X-ACT	Y-ACT	TIR
1.00	-0.0031	-0.0015	0.00344
7.00	0.0015	0.0013	0.00198

BASE THICKNESS (IN) 1.525

PROJECTILE LENGTH (IN) 16.665

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 78 PROJECTILE R4

INSPECTION DATE 10/23/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.50	0.0076	0.0047	0.00894	2.944	0.0005	0.0009	0.00103	4.987
2.50	0.0039	0.0001	0.00290	2.377	0.0028	-0.0004	0.00293	5.122
3.50	0.0050	0.0012	0.00514	2.494	0.0008	-0.0032	0.00330	5.122
4.50	0.0016	0.0011	0.00124	2.609	-0.0010	0.0011	0.00142	4.987
5.50	-0.0014	-0.0005	0.00145	2.724	0.0009	0.0018	0.00137	4.951
6.50	-0.0025	-0.0001	0.00250	2.842	0.0022	0.0010	0.00242	4.956
7.50	-0.0043	-0.0008	0.00434	2.924	0.0011	0.0024	0.00243	4.951
8.50	-0.0055	-0.0017	0.00574	2.928	0.0020	0.0016	0.00253	4.954
9.50	-0.0061	-0.0029	0.00694	2.933	0.0002	0.0012	0.00122	4.954

72	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	-0.0130	-0.0062	0.01467	2.947	0.0016	0.0013	0.00206	4.942
4.75	-0.0121	-0.0039	0.01271	2.908	0.0016	0.0014	0.00213	4.994
3.75	-0.0081	-0.0019	0.00829	2.748	0.0013	0.0023	0.00244	4.703
2.75	-0.0103	-0.0009	0.01033	2.633	0.0005	0.0010	0.00112	4.590
2.75	-0.0001	0.0009	0.00014	2.457	0.0014	0.0020	0.00244	4.428
2.75	-0.0041	0.0047	0.00637	2.314	0.0013	0.0021	0.00233	4.277
1.75	0.0054	0.0054	0.01084	2.865	0.0020	0.0018	0.00252	4.976
1.25	0.0020	0.0134	0.01355	2.613	0.0020	0.0008	0.00215	5.122

73	X-ACT	Y-ACT	TIP
1.00	-0.0000	0.0039	0.00400
2.00	0.0042	0.0106	0.01140

BASE THICKNESS (IN) 1.562

PROJECTILE LENGTH (IN) 18.671

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

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GUN PROJECTILE INSPECTION DATA

5/23 MK 44-C LCT 79 PROJECTILE B5

INSPECTION DATE 10/16/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.00	0.0057	-0.0032	0.00648	2.994	-0.0016	0.0019	0.00248	4.586
2.00	0.0072	-0.0020	0.00305	3.372	0.0008	0.0038	0.00388	5.121
3.00	0.0045	-0.0035	0.00570	3.493	-0.0019	0.0035	0.00408	5.174
4.00	0.0073	0.0005	0.00732	3.609	-0.0013	0.0014	0.00151	4.884
5.00	0.0056	0.0033	0.01015	3.727	-0.0026	0.0011	0.00282	4.360
6.00	0.0084	0.0048	0.00985	3.844	-0.0009	0.0017	0.00152	4.356
7.00	0.0053	0.0068	0.01152	3.926	-0.0015	0.0017	0.00222	4.057
8.00	0.0065	0.0075	0.00799	3.932	-0.0037	0.0018	0.00411	4.058
9.00	0.0052	0.0072	0.00988	3.942	-0.0023	0.0020	0.00405	4.264

72	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	Y-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	0.0041	0.0021	0.01014	3.945	-0.0019	0.0014	0.00234	4.084
4.75	0.0037	0.0054	0.00671	3.905	-0.0022	0.0015	0.00353	4.880
3.75	0.0061	-0.0013	0.00637	3.727	-0.0036	0.0014	0.00386	4.704
2.75	0.0035	-0.0055	0.00402	3.607	-0.0025	0.0019	0.00393	4.580
2.75	-0.0002	-0.0055	0.00350	3.476	-0.0043	0.0019	0.00470	4.439
2.25	-0.0004	-0.0057	0.00331	3.302	-0.0036	0.0011	0.00376	4.280
1.75	0.0034	-0.0055	0.00389	3.934	-0.0037	0.0022	0.00440	4.099
1.25	0.0013	-0.0053	0.00542	3.645	-0.0032	0.0009	0.00342	3.945

73	Y-ACT	Y-ACT	TIP
1.00	-0.0054	-0.0002	0.00640
2.00	-0.0001	-0.0127	0.00247

BASE THICKNESS (IN) 1.520

PROJECTILE LENGTH (IN) 16.454

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

WIN PROJECTILE INSPECTION DATA

6/38 MK 46-0 LCT 79 PROJECTILE B1

INSPECTION DATE 10/21/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)			
71	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.50	-0.0021	-0.0020	0.00380	2.541	0.0012	0.0007	0.00130	4.080
1.50	-0.0049	0.0021	0.00721	3.380	-0.0016	-0.0022	0.00272	5.121
1.50	-0.0048	-0.0014	0.00684	3.458	-0.0040	-0.0008	0.00408	5.124
1.50	-0.0051	-0.0066	0.00834	3.619	-0.0010	-0.0006	0.00117	4.085
1.50	-0.0064	-0.0016	0.00165	3.729	-0.0016	-0.0008	0.00179	4.059
1.50	0.0025	-0.0022	0.00406	3.845	0.0003	-0.0009	0.00075	4.056
1.50	0.0044	-0.0024	0.00501	3.927	0.0001	-0.0001	0.00014	4.054
1.50	0.0025	-0.0016	0.00287	3.930	-0.0014	-0.0005	0.00149	4.054
1.50	0.0030	-0.0010	0.00345	3.940	-0.0007	-0.0006	0.00092	4.055

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)			
72	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
3.75	0.0050	-0.0010	0.00510	2.551	-0.0001	-0.0008	0.00091	4.432
4.75	0.0041	-0.0012	0.00427	2.850	-0.0007	-0.0006	0.00092	4.334
3.75	0.0038	-0.0025	0.00455	2.706	-0.0009	-0.0002	0.00032	4.700
3.75	-0.0018	-0.0023	0.00375	2.575	-0.0026	-0.0006	0.00257	4.570
2.75	-0.0047	-0.0036	0.00532	2.447	-0.0015	-0.0007	0.00161	4.438
2.75	-0.0021	0.0011	0.00237	2.267	-0.0014	-0.0010	0.00172	4.276
1.75	-0.0024	0.0042	0.00484	2.959	-0.0020	-0.0009	0.00213	4.055
1.25	-0.0040	-0.0021	0.00470	2.558	-0.0015	-0.0010	0.00140	3.985

73 X-ACT Y-ACT TIP

1.00 -0.0042 -0.0015 0.00444
 7.00 -0.0157 0.0160 0.02520

BASE THICKNESS (IN) 1.550

PROJECTILE LENGTH (IN) 14.652

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/79 MK 46-0 1CT 79 PROJECTILE R2

INSPECTION DATE 10/29/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIP	DIA
1.00	-0.0004	-0.0072	0.00721	2.969	0.0021	0.0005	0.00216	4.984
2.00	-0.0019	-0.0073	0.00754	3.379	0.0017	-0.0021	0.00270	5.126
3.00	0.0046	-0.0084	0.00958	3.496	0.0022	-0.0021	0.00304	5.127
4.00	0.0057	-0.0102	0.01341	3.410	0.0	0.0015	0.00150	4.984
5.00	0.0040	-0.0100	0.01195	3.727	-0.0	0.0013	0.00130	4.952
6.00	0.0133	-0.0074	0.01435	3.941	-0.0001	0.0009	0.00091	4.955
7.00	0.0112	-0.0078	0.01165	3.921	0.0003	0.0014	0.00143	4.967
8.00	0.0115	-0.0027	0.01191	3.925	-0.0014	0.0011	0.00179	4.955
9.00	0.0119	-0.0017	0.01202	3.929	-0.0024	0.0012	0.00249	4.956

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	0.0047	0.0016	0.00490	3.937	-0.0001	0.0012	0.00120	4.981
4.75	0.0070	0.0040	0.00806	3.892	-0.0015	0.0019	0.00242	4.983
3.75	0.0123	0.0020	0.01363	3.757	-0.0018	0.0010	0.00206	4.704
3.25	0.0175	-0.0022	0.01745	3.630	-0.0019	0.0021	0.00277	4.521
2.75	0.0185	-0.0060	0.02040	3.464	-0.0027	0.0013	0.00300	4.443
2.25	0.0209	-0.0101	0.02321	3.211	-0.0027	0.0013	0.00300	4.293
1.75	0.0248	-0.0119	0.02529	2.926	-0.0018	0.0021	0.00277	4.103
1.25	0.0316	0.0124	0.03243	2.573	-0.0026	0.0018	0.00316	3.902

Z3	X-ACT	Y-ACT	TIP
1.00	-0.0011	-0.0017	0.00202
7.00	0.0009	-0.0021	0.00229

BASE THICKNESS (IN) 1.511

PROJECTILE LENGTH (IN) 16.656

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 79 PROJECTILE 83

INSPECTION DATE 10/19/70

21	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.90	-0.0126	0.0107	0.01653	2.900	0.0011	0.0001	0.00110	4.027
2.90	-0.0055	0.0050	0.01055	3.357	0.0031	-0.0004	0.00213	5.125
3.90	-0.0048	0.0101	0.01118	3.475	-0.0004	0.0005	0.00044	5.122
4.90	-0.0054	0.0117	0.01285	3.600	0.0008	0.0007	0.00106	4.934
5.90	-0.0034	0.0132	0.01368	3.713	0.0017	0.0016	0.00232	4.862
6.90	0.0002	0.0124	0.01240	3.827	0.0011	0.0012	0.00143	4.755
7.90	-0.0015	0.0119	0.01195	3.921	0.0007	0.0009	0.00114	4.862
8.90	-0.0022	0.0130	0.01334	3.926	0.0002	0.0005	0.00054	4.764
9.90	-0.0022	0.0142	0.01506	3.932	0.0009	0.0005	0.00103	4.862

22	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	-0.0	0.0158	0.01580	3.932	0.0014	0.0	0.00140	4.300
4.75	0.0008	0.0126	0.01263	3.880	0.0020	0.0008	0.00215	4.301
3.75	0.0020	0.0051	0.00592	3.700	0.0008	-0.0004	0.00089	4.704
3.25	0.0022	-0.0041	0.00445	3.591	-0.0002	-0.0004	0.00045	4.501
2.75	0.0008	-0.0153	0.01532	3.455	0.0014	-0.0006	0.00152	4.440
2.25	-0.0018	-0.0200	0.02008	3.291	0.0004	-0.0002	0.00045	4.275
1.75	-0.0023	-0.0223	0.02239	2.974	0.0012	-0.0007	0.00135	4.035
1.25	0.0023	-0.0224	0.02407	2.612	0.0016	-0.0009	0.00184	3.932

22 X-ACT Y-ACT TIP

1.00 -0.0014 -0.0002 0.00141
7.00 -0.0017 0.0047 0.00500

BASE THICKNESS (IN) 1.527

PROJECTILE LENGTH (IN) 14.664

21 IS DISTANCE FROM BASE (IN)

22 IS DISTANCE FROM NOSE (IN)

22 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

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GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 79 PROJECTILE 84

INSPECTION DATE 10/30/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.00	-0.0042	-0.0060	0.00732	2.585	0.0007	0.0004	0.00021	4.027
2.00	-0.0077	-0.0074	0.01068	2.381	0.0041	0.0015	0.00437	5.124
3.00	-0.0022	-0.0022	0.00349	3.500	0.0009	0.0004	0.00022	5.127
4.00	-0.0057	-0.0049	0.00752	2.611	-0.0008	0.0007	0.00106	4.024
5.00	-0.0044	-0.0058	0.00728	2.724	-0.0001	0.0005	0.00051	4.059
6.00	-0.0026	-0.0077	0.00913	2.842	0.0012	0.0011	0.00163	4.041
7.00	-0.0056	-0.0068	0.00991	2.926	-0.0014	0.0	0.00140	4.059
8.00	-0.0035	-0.0049	0.00602	2.925	-0.0012	0.0003	0.00124	4.053
9.00	-0.0021	-0.0020	0.00359	2.936	-0.0021	0.0005	0.00214	4.040

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0024	-0.0002	0.00341	2.942	0.0008	0.0003	0.00244	4.094
4.75	0.0001	-0.0001	0.00014	2.897	0.0015	0.0025	0.00297	4.091
3.75	0.0015	-0.0008	0.00170	2.727	-0.0014	0.0018	0.00223	4.065
2.75	0.0004	-0.0023	0.00222	2.611	-0.0014	0.0018	0.00228	4.082
1.75	-0.0027	-0.0067	0.00719	2.474	-0.0015	0.0018	0.00216	4.041
0.75	-0.0	-0.0060	0.00600	2.290	-0.0008	0.0029	0.00301	4.078
1.75	0.0005	-0.0056	0.00562	2.647	-0.0011	0.0020	0.00228	4.027
1.25	0.0041	-0.0116	0.01230	2.600	-0.0007	0.0021	0.00221	2.024

Z3	X-ACT	Y-ACT	TIR
1.00	0.0017	-0.0017	0.00240
7.00	0.0247	-0.0067	0.02550

BASE THICKNESS (IN) 1.501

PROJECTILE LENGTH (IN) 16.455

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/39 MK 46-0 LOT 79 PROJECTILE B5

INSPECTION DATE 10/20/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.90	-0.0025	0.0127	0.01294	3.017	-0.0003	0.0002	0.00036	4.994
2.90	0.0002	0.0095	0.00950	3.384	-0.0049	-0.0018	0.00513	5.123
3.90	-0.0032	0.0079	0.00852	3.495	-0.0053	-0.0006	0.00533	5.126
4.90	-0.0078	0.0036	0.00859	3.614	-0.0022	-0.0001	0.00220	4.992
5.90	-0.0042	0.0007	0.00436	3.733	-0.0011	-0.0007	0.00130	4.956
6.90	-0.0052	0.0003	0.00521	3.957	-0.0013	-0.0009	0.00159	4.959
7.90	-0.0015	-0.0007	0.00166	3.939	-0.0004	-0.0005	0.00064	4.959
8.90	-0.0022	-0.0021	0.00304	3.944	-0.0014	-0.0011	0.00179	4.956
9.90	-0.0021	-0.0026	0.00324	3.949	-0.0005	-0.0011	0.00121	4.950

72	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	0.0008	-0.0014	0.00161	3.956	-0.0018	-0.0007	0.00193	4.982
4.75	0.0027	0.0004	0.00273	3.919	-0.0007	-0.0003	0.00076	4.939
3.75	0.0025	0.0062	0.00669	3.764	-0.0007	-0.0001	0.00071	4.703
2.75	0.0056	0.0071	0.00904	3.655	-0.0009	-0.0001	0.00091	4.579
2.75	0.0120	0.0077	0.01426	3.521	-0.0011	-0.0002	0.00112	4.437
2.25	0.0151	0.0109	0.01856	3.329	-0.0002	0.0003	0.00026	4.279
1.75	0.0163	0.0140	0.02149	2.967	-0.0003	-0.0	0.00030	4.096
1.25	0.0156	0.0097	0.01837	2.665	0.0002	0.0002	0.00029	3.902

73 X-ACT Y-ACT TIP

1.00 0.0043 -0.0027 0.00551
7.00 0.0090 -0.0084 0.01160

BASE THICKNESS (IN) 1.545

PROJECTILE LENGTH (IN) 16.655

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 80 PROJECTILE R1

INSPECTION DATE 10/26/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0110	0.0106	0.01528	3.057	0.0014	-0.0002	0.00141	4.984
2.90	-0.0109	0.0069	0.01290	3.381	0.0018	-0.0004	0.00184	5.124
3.90	-0.0104	0.0065	0.01226	3.497	0.0058	0.0001	0.00580	5.124
4.90	-0.0079	0.0046	0.00914	3.614	-0.0001	-0.0007	0.00071	4.984
5.90	-0.0042	0.0043	0.00601	3.724	0.0020	-0.0002	0.00201	4.960
6.90	-0.0049	0.0026	0.00555	3.842	0.0026	0.0008	0.00272	4.964
7.90	-0.0046	0.0017	0.00490	3.923	0.0025	0.0002	0.00251	4.963
8.90	-0.0011	-0.0001	0.00110	3.924	0.0012	0.0010	0.00156	4.961
9.90	0.0027	-0.0003	0.00272	3.927	0.0	0.0005	0.00050	4.963

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0039	-0.0027	0.00538	3.930	0.0028	0.0003	0.00282	4.983
4.75	0.0034	-0.0052	0.00621	3.891	0.0005	-0.0017	0.00177	4.895
3.75	-0.0021	0.0069	0.00721	3.735	0.0018	0.0013	0.00222	4.706
3.25	-0.0025	0.0143	0.01452	3.616	0.0017	0.0007	0.00184	4.584
2.75	0.0025	0.0139	0.01433	3.475	0.0016	0.0011	0.00194	4.441
2.25	0.0083	0.0062	0.01036	3.277	0.0017	0.0007	0.00184	4.279
1.75	0.0110	-0.0	0.01100	2.933	0.0040	0.0005	0.00403	4.097
1.25	0.0032	-0.0009	0.00232	2.605	0.0027	0.0012	0.00295	3.895

Z3	X-ACT	Y-ACT	TIR
1.00	0.0009	0.0012	0.00150
7.00	0.0238	-0.0050	0.02432

BASE THICKNESS (IN) 1.453

PROJECTILE LENGTH (IN) 16.603

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GIIN PROJECTILE INSPECTION DATA

5/38 MK 46-0 LCT 80 PROJECTILE B2

INSPECTION DATE 10/20/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	CIA
1.90	-0.0010	-0.0056	0.00569	3.020	-0.0002	-0.0004	0.00045	4.981
2.90	-0.0065	0.0002	0.00660	3.378	-0.0	-0.0017	0.00170	5.125
3.90	-0.0061	0.0003	0.00611	3.496	-0.0017	-0.0010	0.00197	5.124
4.90	-0.0050	-0.0001	0.00600	3.610	-0.0004	-0.0004	0.00057	4.982
5.90	-0.0056	0.0004	0.00561	3.726	0.0005	-0.0	0.00050	4.956
6.90	-0.0059	-0.0009	0.00597	3.842	0.0003	-0.0013	0.00133	4.955
7.90	-0.0047	-0.0003	0.00471	3.927	-0.0005	-0.0008	0.00100	4.957
8.90	-0.0067	-0.0013	0.00682	3.930	0.0002	-0.0010	0.00102	4.954
9.90	-0.0054	-0.0001	0.00540	3.936	-0.0002	-0.0011	0.00112	4.955

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	CIA
5.75	-0.0041	0.0020	0.00456	3.641	0.0006	-0.0010	0.00117	4.983
4.75	-0.0024	0.0025	0.00247	3.603	-0.0003	-0.0019	0.00192	4.889
3.75	-0.0011	0.0012	0.00163	3.771	-0.0	-0.0016	0.00160	4.702
3.25	-0.0030	0.0015	0.00335	3.646	0.0001	-0.0012	0.00120	4.579
2.75	-0.0028	-0.0009	0.00291	3.482	-0.0008	-0.0011	0.00136	4.438
2.25	0.0010	-0.0033	0.00345	2.230	-0.0009	-0.0017	0.00162	4.276
1.75	0.0020	-0.0066	0.00608	2.848	0.0002	-0.0020	0.00201	4.095
1.25	-0.0131	-0.0063	0.01454	2.575	0.0004	-0.0017	0.00175	3.895

Z3	X-ACT	Y-ACT	TIP
1.00	-0.0045	0.0002	0.00450
7.00	-0.0038	0.0213	0.02164

BASE THICKNESS (IN) 1.531

PROJECTILE LENGTH (IN) 16.456

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-C LOT 80 PROJECTILE B3

INSPECTION DATE 10/22/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA	
1.90	0.0034	0.0154	0.01577	2.990	0.0018	0.0013	0.00222	4.977	
2.90	0.0007	0.0127	0.01272	3.376	0.0002	-0.0035	0.00351	5.122	
3.90	-0.0017	0.0129	0.01301	3.492	-0.0016	-0.0018	0.00241	5.124	
4.90	0.0013	0.0137	0.01376	3.612	-0.0011	0.0004	0.00117	4.983	
5.90	-0.0038	0.0101	0.01079	3.721	-0.0020	-0.0001	0.00200	4.957	
6.90	-0.0052	0.0099	0.01118	3.838	-0.0028	0.0007	0.00289	4.959	
7.90	-0.0050	0.0099	0.01109	3.922	-0.0008	0.0007	0.00106	4.957	
8.90	-0.0051	0.0083	0.00974	3.925	-0.0027	0.0016	0.00314	4.955	
9.90	-0.0051	0.0069	0.00858	3.930	-0.0024	0.0009	0.00256	4.957	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	-0.0022	0.0055	0.00592	3.643	-0.0029	0.0011	0.00310	4.994	
4.75	-0.0006	0.0064	0.00643	3.905	-0.0010	0.0018	0.00206	4.888	
3.75	-0.0002	0.0106	0.01060	3.711	-0.0032	0.0009	0.00332	4.699	
3.25	0.0044	0.0086	0.00966	3.583	-0.0019	0.0015	0.00242	4.577	
2.75	0.0021	0.0067	0.00702	3.445	-0.0021	0.0013	0.00247	4.436	
2.25	0.0033	0.0084	0.00902	3.266	-0.0023	0.0017	0.00286	4.273	
1.75	-0.0021	0.0131	0.01327	2.936	-0.0020	0.0003	0.00202	4.091	
1.25	0.0060	0.0075	0.00960	2.598	-0.0018	0.0002	0.00181	3.889	

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0047	0.0022	0.00519
7.00	-0.0068	0.0056	0.00881

BASE THICKNESS (IN) 1.495

PROJECTILE LENGTH (IN) 16.655

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GIJN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 80 PROJECTILE B4

INSPECTION DATE 10/19/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
1.90	-0.0218	-0.0066	0.02344	2.934	0.0021	-0.0011	0.00237	4.985
2.90	-0.0112	-0.0110	0.01570	3.370	0.0001	-0.0043	0.00430	5.124
3.90	-0.0113	-0.0126	0.01692	3.486	-0.0016	-0.0040	0.00431	5.126
4.90	-0.0044	-0.0033	0.00550	3.642	-0.0031	-0.0018	0.00358	4.982
5.90	-0.0021	0.0021	0.00297	3.782	-0.0026	-0.0026	0.00368	4.956
6.90	-0.0030	-0.0061	0.00680	3.870	-0.0014	-0.0031	0.00340	4.957
7.90	-0.0063	-0.0191	0.02011	3.932	-0.0018	-0.0030	0.00350	4.955
8.90	-0.0089	-0.0228	0.02448	3.931	-0.0033	-0.0021	0.00391	4.956
9.90	-0.0122	-0.0258	0.02720	3.925	-0.0026	-0.0016	0.00305	4.957

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
5.75	-0.0112	-0.0328	0.03561	3.929	-0.0016	-0.0009	0.00184	4.983
4.75	-0.0107	-0.0293	0.03119	3.893	-0.0030	-0.0005	0.00304	4.886
3.75	-0.0109	-0.0225	0.02500	3.702	-0.0030	-0.0	0.00300	4.700
3.25	-0.0052	-0.0245	0.02505	3.575	-0.0021	-0.0003	0.00212	4.575
2.75	-0.0029	-0.0221	0.02229	3.435	-0.0023	0.0001	0.00230	4.432
2.25	-0.0009	-0.0166	0.01642	3.254	-0.0021	0.0006	0.00218	4.271
1.75	-0.0008	-0.0184	0.01842	2.949	-0.0024	0.0004	0.00243	4.088
1.25	-0.0014	-0.0145	0.01457	2.576	-0.0021	0.0002	0.00211	3.896

Z3 X-ACT Y-ACT TIR

1.00	-0.0050	-0.0024	0.00555
7.00	-0.0034	0.0001	0.00340

BASE THICKNESS (IN) 1.546

PROJECTILE LENGTH (IN) 16.657

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/39 MK 66-0 LCT 80 PROJECTILE R5

INSPECTION DATE 10/26/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0027	-0.0079	0.00835	3.002	-0.0027	0.0003	0.00272	4.985
2.90	0.0009	-0.0108	0.01084	3.381	-0.0016	0.0001	0.00160	5.125
3.90	-0.0015	-0.0113	0.01140	3.497	-0.0007	0.0015	0.00166	5.123
4.90	-0.0030	-0.0108	0.01121	3.616	-0.0025	0.0002	0.00251	4.986
5.90	-0.0007	-0.0110	0.01102	3.728	-0.0009	0.0005	0.00108	4.955
6.90	0.0001	-0.0109	0.01090	3.842	-0.0023	-0.0006	0.00238	4.952
7.90	0.0034	-0.0106	0.01112	3.922	-0.0006	-0.0004	0.00072	4.952
8.90	-0.0007	-0.0117	0.01170	3.921	-0.0026	0.0001	0.00260	4.953
9.90	0.0024	-0.0104	0.01067	3.925	-0.0017	-0.0003	0.00173	4.952

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0005	-0.0095	0.00951	3.928	-0.0015	-0.0002	0.00151	4.984
4.75	0.0037	-0.0073	0.00818	3.882	0.0020	0.0015	0.00250	4.887
3.75	0.0052	-0.0089	0.01031	3.750	-0.0017	0.0009	0.00192	4.699
3.25	0.0040	-0.0129	0.01251	3.624	-0.0020	0.0005	0.00206	4.576
2.75	0.0034	-0.0154	0.01577	3.465	-0.0030	0.0001	0.00300	4.434
2.25	0.0073	-0.0170	0.01850	3.227	-0.0029	0.0002	0.00291	4.274
1.75	0.0065	-0.0157	0.01696	2.844	-0.0027	0.0006	0.00277	4.093
1.25	0.0007	-0.0137	0.01372	2.570	-0.0023	0.0008	0.00244	3.892

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0063	-0.0001	0.00630
7.00	-0.0286	0.0054	0.02511

BASE THICKNESS (IN) 1.543

PROJECTILE LENGTH (IN) 16.657

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/28 MK 66-0 LCT 91 PROJECTILE B1

INSPECTION DATE 10/21/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	CIA
1.90	0.0199	0.0002	0.01980	2.890	0.0015	-0.0005	0.00158	4.980
2.90	0.0299	0.0012	0.02982	3.371	0.0001	-0.0009	0.00091	5.120
3.90	0.0235	0.0004	0.02350	3.489	-0.0012	-0.0009	0.00150	5.120
4.90	0.0071	-0.0005	0.01108	3.639	-0.0011	-0.0011	0.00156	4.982
5.90	-0.0117	-0.0184	0.02180	3.807	-0.0023	-0.0027	0.00355	4.960
6.90	-0.0028	-0.0172	0.01743	3.897	-0.0015	-0.0025	0.00292	4.960
7.90	0.0108	-0.0105	0.01506	3.950	-0.0019	-0.0031	0.00358	4.957
8.90	0.0152	-0.0073	0.01686	3.946	-0.0024	-0.0028	0.00369	4.955
9.90	0.0141	-0.0059	0.01528	3.954	-0.0023	-0.0029	0.00370	4.956

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	CIA
5.75	0.0283	0.0018	0.02836	3.940	0.0002	-0.0016	0.00161	4.984
4.75	0.0257	0.0051	0.02620	3.909	-0.0015	-0.0024	0.00283	4.894
3.75	0.0207	0.0112	0.02354	3.731	-0.0021	-0.0025	0.00326	4.705
3.25	0.0215	0.0054	0.02347	3.612	-0.0022	-0.0026	0.00341	4.582
2.75	0.0224	0.0064	0.02330	3.483	-0.0028	-0.0018	0.00333	4.440
2.25	0.0213	0.0063	0.02221	3.311	-0.0020	-0.0031	0.00369	4.277
1.75	0.0195	0.0066	0.02059	3.007	-0.0023	-0.0022	0.00318	4.095
1.25	0.0171	0.0055	0.01956	2.637	-0.0009	-0.0025	0.00266	3.891

Z3	X-ACT	Y-ACT	TIP
1.00	-0.0013	0.0017	0.00214
7.00	-0.0033	0.0029	0.00439

BASE THICKNESS (IN) 1.598

PROJECTILE LENGTH (IN) 16.680

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 46-0 LCT 81 PROJECTILE 82

INSPECTION DATE 10/20/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA	
1.90	-0.0032	0.0029	0.00432	2.895	0.0022	0.0001	0.00220	4.984	
2.90	0.0192	0.0053	0.01992	3.376	0.0021	0.0003	0.00212	5.124	
3.90	0.0107	0.0036	0.01129	3.490	0.0023	-0.0004	0.00233	5.121	
4.90	0.0069	0.0028	0.00745	3.602	0.0019	-0.0006	0.00199	4.985	
5.90	0.0028	0.0017	0.00323	3.718	0.0015	-0.0008	0.00170	4.958	
5.90	0.0020	0.0001	0.00200	3.834	0.0007	-0.0012	0.00139	4.957	
7.90	0.0008	-0.0020	0.00215	3.920	0.0013	-0.0010	0.00164	4.956	
8.90	-0.0015	-0.0025	0.00292	3.924	0.0015	-0.0005	0.00158	4.959	
9.90	-0.0051	-0.0039	0.00642	3.930	0.0007	-0.0011	0.00130	4.958	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA	
5.75	-0.0075	-0.0025	0.00791	3.642	0.0011	-0.0008	0.00136	4.984	
6.75	-0.0081	-0.0035	0.00892	3.611	0.0022	-0.0002	0.00221	4.885	
3.75	-0.0116	-0.0016	0.01171	3.733	0.0029	0.0001	0.00290	4.699	
3.25	-0.0103	0.0018	0.01046	3.610	0.0012	-0.0006	0.00134	4.577	
2.75	-0.0096	0.0051	0.01000	3.475	0.0010	-0.0001	0.00100	4.437	
2.25	-0.0070	0.0047	0.00842	3.291	0.0001	-0.0004	0.00041	4.272	
1.75	-0.0074	0.0029	0.00795	2.972	0.0010	-0.0011	0.00149	4.091	
1.25	-0.0065	0.0031	0.00720	2.614	0.0014	-0.0015	0.00205	3.890	

Z3	X-ACT	Y-ACT	TIR
1.00	0.0001	-0.0001	0.00014
7.00	-0.0099	0.0116	0.01462

BASE THICKNESS (IN) 1.591

PROJECTILE LENGTH (IN) 16.658

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 81 PROJECTILE P3

INSPECTION DATE 11/22/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.50	-0.0083	0.0155	0.02028	2.982	0.0013	0.0004	0.00136	4.984
2.50	-0.0057	0.0156	0.02041	3.378	0.0001	0.0013	0.00130	5.024
3.50	-0.0075	0.0172	0.01876	3.492	-0.0005	0.0027	0.00275	5.123
4.50	-0.0022	0.0135	0.01368	3.608	0.0002	0.0004	0.00045	4.984
5.50	0.0014	0.0105	0.01058	3.725	0.0005	0.0015	0.00158	4.957
6.50	0.0043	0.0069	0.00688	3.841	0.0009	0.0011	0.00142	4.957
7.50	0.0053	0.0065	0.01002	3.927	0.0002	0.0013	0.00132	4.955
8.50	0.0043	0.0064	0.00771	3.933	0.0004	0.0014	0.00146	4.954
9.50	0.0078	0.0040	0.00677	3.936	0.0005	0.0021	0.00216	4.956

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0102	0.0001	0.01020	3.936	-0.0005	0.0004	0.00064	4.984
4.75	0.0107	-0.0004	0.01071	3.904	0.0006	0.0017	0.00180	4.889
3.75	0.0092	0.0031	0.00971	3.772	-0.0008	0.0013	0.00153	4.702
3.25	0.0122	0.0027	0.01250	3.651	-0.0011	0.0015	0.00186	4.578
2.75	0.0129	0.0018	0.01302	3.492	0.0004	0.0016	0.00165	4.437
2.25	0.0093	0.0010	0.00935	3.249	0.0001	0.0016	0.00160	4.278
1.75	0.0051	-0.0015	0.00532	2.875	0.0002	0.0019	0.00191	4.095
1.25	0.0092	-0.0072	0.01168	2.578	0.0001	0.0013	0.00130	3.896

Z3 X-ACT Y-ACT TIR

1.00 -0.0017 0.0016 0.00232
7.00 -0.0162 -0.0109 0.01947

BASE THICKNESS (IN) 1.521

PROJECTILE LENGTH (IN) 16.656

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 45-0 LCT R1 PROJECTILE R4

INSPECTION DATE 10/15/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.50	0.0119	0.0032	0.01222	3.045	0.0038	0.0005	0.00383	4.996
2.50	0.0020	0.0063	0.00661	3.375	0.0034	-0.0010	0.00354	5.122
3.50	0.0039	0.0040	0.00555	3.494	0.0025	-0.0007	0.00269	5.122
4.50	0.0066	0.0025	0.00706	3.610	0.0020	0.0013	0.00239	4.993
5.50	0.0089	0.0013	0.00999	3.725	0.0025	0.0003	0.00252	4.960
6.50	0.0087	0.0019	0.00891	3.840	0.0045	0.0006	0.00494	4.961
7.50	0.0097	0.0010	0.00975	3.922	0.0036	-0.0001	0.00360	4.959
8.50	0.0065	-0.0002	0.00650	3.926	0.0021	0.0003	0.00212	4.959
9.50	0.0047	-0.0026	0.00527	3.926	0.0025	0.0007	0.00260	4.961

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0079	-0.0027	0.00872	3.920	0.0032	-0.0	0.00330	4.983
4.75	0.0063	-0.0023	0.00711	3.912	0.0025	0.0003	0.00252	4.889
3.75	0.0091	-0.0007	0.00913	3.801	0.0018	0.0007	0.00193	4.703
2.75	0.0060	-0.0007	0.00604	3.699	0.0010	0.0011	0.00149	4.581
2.25	0.0074	-0.0032	0.00805	3.522	0.0006	0.0017	0.00180	4.441
2.25	0.0090	-0.0016	0.00914	3.260	0.0012	0.0010	0.00156	4.276
1.75	0.0080	0.0028	0.00825	2.901	0.0034	0.0008	0.00349	4.096
1.25	0.0073	0.0042	0.00847	2.641	0.0020	0.0008	0.00215	3.995

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0044	-0.0014	0.00462
7.00	-0.0088	0.0017	0.00896

BASE THICKNESS (IN) 1.497

PROJECTILE LENGTH (IN) 16.645

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 81 PROJECTILE B5

INSPECTION DATE 10/29/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0138	0.0047	0.01458	3.027	0.0021	0.0008	0.00225	4.986
2.90	0.0122	0.0067	0.01392	3.384	0.0014	-0.0002	0.00141	5.127
3.90	0.0122	0.0	0.01220	3.498	0.0013	0.0012	0.00177	5.125
4.90	0.0133	-0.0024	0.01351	3.608	-0.0005	-0.0003	0.00058	4.983
5.90	0.0107	-0.0050	0.01181	3.722	0.0003	-0.0005	0.00058	4.959
6.90	0.0141	-0.0052	0.01503	3.835	0.0023	0.0	0.00230	4.959
7.90	0.0133	-0.0044	0.01401	3.915	0.0016	-0.0006	0.00171	4.958
8.90	0.0122	-0.0049	0.01315	3.917	0.0002	-0.0001	0.00022	4.958
9.90	0.0125	-0.0077	0.01468	3.924	0.0002	-0.0	0.00020	4.957

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0140	-0.0059	0.01519	3.928	0.0010	0.0006	0.00117	4.984
4.75	0.0132	-0.0050	0.01412	3.905	0.0012	0.0008	0.00144	4.886
3.75	0.0101	-0.0058	0.01165	3.788	0.0001	0.0005	0.00051	4.697
3.25	0.0061	-0.0056	0.00828	3.671	0.0009	0.0015	0.00175	4.576
2.75	0.0052	-0.0047	0.00701	3.508	0.0007	0.0016	0.00184	4.433
2.25	0.0066	-0.0047	0.00810	3.244	-0.0002	0.0015	0.00151	4.273
1.75	0.0058	-0.0066	0.01182	2.876	0.0001	0.0015	0.00150	4.091
1.25	0.0134	-0.0084	0.01582	2.614	0.0003	0.0017	0.00173	3.889

Z3	X-ACT	Y-ACT	TIP
1.00	-0.0011	-0.0	0.00110
7.00	0.0177	-0.0075	0.01922

BASE THICKNESS (IN) 1.503

PROJECTILE LENGTH (IN) 16.664

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 82 PROJECTILE B1

INSPECTION DATE 10/2 /70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0121	0.0055	0.01329	2.928	0.0002	-0.0007	0.00073	4.983
2.90	-0.0114	-0.0037	0.01199	3.367	0.0018	-0.0015	0.00234	5.123
3.90	-0.0147	-0.0012	0.01475	3.483	0.0010	-0.0023	0.00251	5.127
4.90	-0.0143	0.0004	0.01431	3.599	-0.0	0.0002	0.00020	4.986
5.90	-0.0141	0.0012	0.01415	3.716	-0.0002	-0.0006	0.00063	4.958
6.90	-0.0135	0.0011	0.01354	3.834	0.0012	-0.0004	0.00126	4.956
7.90	-0.0130	0.0021	0.01336	3.925	0.0010	-0.0006	0.00117	4.956
8.90	-0.0152	0.0029	0.01547	3.929	-0.0012	-0.0006	0.00134	4.954
9.90	-0.0153	0.0020	0.01543	3.937	0.0033	0.0003	0.00331	4.956

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0139	0.0019	0.01403	3.943	0.0034	0.0008	0.00349	4.983
4.75	-0.0098	-0.0004	0.00981	3.909	0.0034	0.0005	0.00344	4.885
3.75	-0.0063	-0.0036	0.00726	3.761	0.0021	0.0009	0.00228	4.697
3.25	-0.0084	-0.0044	0.00948	3.649	0.0031	0.0010	0.00326	4.572
2.75	-0.0107	-0.0030	0.01111	3.513	-0.0009	0.0006	0.00108	4.434
2.25	-0.0135	-0.0013	0.01356	3.335	-0.0022	-0.0006	0.00228	4.274
1.75	-0.0142	0.0002	0.01420	3.013	0.0032	0.0008	0.00330	4.089
1.25	-0.0081	-0.0028	0.00895	2.654	0.0039	0.0013	0.00411	3.887

Z3	X-ACT	Y-ACT	TIR
1.00	0.0021	0.0029	0.00350
7.00	0.0052	0.0073	0.00896

BASE THICKNESS (IN) 1.583

PROJECTILE LENGTH (IN) 16.662

Z1 IS DISTANCE FROM BASE (IN) .

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 82 PROJECTILE R2

INSPECTION DATE 10/20/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0010	0.0073	0.00737	2.778	-0.0030	-0.0010	0.00316	4.982
2.90	0.0029	0.0089	0.00936	3.371	0.0014	-0.0012	0.00184	5.125
3.90	0.0023	0.0089	0.00933	3.489	0.0003	-0.0003	0.00042	5.125
4.90	0.0037	0.0084	0.00918	3.610	-0.0029	-0.0	0.00290	4.983
5.90	0.0061	0.0083	0.01030	3.726	-0.0011	-0.0005	0.00121	4.957
6.90	0.0094	0.0087	0.01281	3.845	-0.0019	-0.0006	0.00199	4.950
7.90	0.0110	0.0088	0.01409	3.938	-0.0023	-0.0005	0.00235	4.951
8.90	0.0090	0.0060	0.01082	3.942	-0.0030	-0.0004	0.00303	4.951
9.90	0.0113	0.0032	0.01174	3.949	-0.0034	-0.0004	0.00342	4.952

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
3.75	0.0108	-0.0024	0.01106	3.955	-0.0018	-0.0	0.00180	4.982
4.75	0.0115	-0.0028	0.01171	3.907	-0.0028	0.0001	0.00280	4.889
3.75	0.0096	0.0088	0.01302	3.721	-0.0027	0.0004	0.00273	4.699
3.25	0.0091	0.0096	0.01323	3.591	-0.0035	0.0	0.00350	4.576
2.75	0.0069	0.0117	0.01358	3.457	-0.0029	0.0003	0.00292	4.434
2.25	0.0065	0.0205	0.02151	3.280	-0.0026	0.0002	0.00261	4.275
1.75	0.0061	0.0310	0.03159	2.962	-0.0030	-0.0006	0.00306	4.093
1.25	0.0104	0.0231	0.02533	2.623	-0.0021	0.0003	0.00212	3.894

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0065	0.0006	0.00653
7.00	-0.0064	-0.0041	0.00760

BASE THICKNESS (IN) 1.609

PROJECTILE LENGTH (IN) 16.706

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 46-0 LOT 82 PROJECTILE R3

INSPECTION DATE 10/21/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0028	0.0003	0.00282	2.953	0.0005	-0.0	0.00050	4.980
2.90	-0.0060	-0.0163	0.01770	3.376	0.0058	-0.0015	0.00599	5.120
3.90	-0.0031	-0.0130	0.01336	3.490	0.0013	-0.0024	0.00273	5.120
4.90	-0.0028	-0.0058	0.01019	3.605	-0.0005	0.0012	0.00130	4.983
5.90	-0.0015	-0.0074	0.00755	3.720	-0.0009	0.0004	0.00098	4.956
6.90	-0.0017	-0.0061	0.00633	3.839	-0.0007	0.0011	0.00130	4.959
7.90	-0.0	-0.0028	0.00280	3.923	-0.0010	0.0011	0.00149	4.957
8.90	0.0006	-0.0026	0.00267	3.926	-0.0019	0.0016	0.00248	4.954
9.90	0.0006	-0.0031	0.00316	3.927	-0.0018	0.0015	0.00234	4.956

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0023	-0.0027	0.00355	3.931	0.0	0.0015	0.00150	4.986
4.75	0.0004	-0.0010	0.00108	3.896	-0.0007	0.0032	0.00328	4.889
3.75	-0.0035	0.0029	0.00455	3.711	-0.0035	0.0027	0.00442	4.702
3.25	-0.0009	0.0068	0.00686	3.581	-0.0028	0.0040	0.00488	4.580
2.75	-0.0019	0.0056	0.00570	3.447	-0.0030	0.0040	0.00500	4.438
2.25	-0.0037	0.0052	0.00592	3.268	-0.0028	0.0031	0.00418	4.276
1.75	-0.0045	0.0050	0.01006	2.959	-0.0021	0.0038	0.00434	4.094
1.25	0.0014	0.0073	0.00743	2.601	-0.0023	0.0039	0.00453	3.892

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0074	0.0057	0.00934
7.00	-0.0290	0.0163	0.03327

BASE THICKNESS (IN) 1.531

PROJECTILE LENGTH (IN) 16.668

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 82 PROJECTILE R4

INSPECTION DATE 10/21/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
1.90	-0.0052	0.0066	0.00840	2.976	0.0022	-0.0004	0.00224	4.983
2.90	-0.0	0.0056	0.00960	3.376	0.0008	-0.0023	0.00244	5.125
3.90	-0.0061	0.0078	0.00940	3.489	-0.0005	-0.0020	0.00206	5.125
4.90	-0.0065	0.0065	0.00919	3.604	0.0020	0.0005	0.00206	4.982
5.90	-0.0069	0.0055	0.00882	3.721	0.0017	0.0002	0.00171	4.952
6.90	-0.0069	0.0052	0.00864	3.841	0.0023	0.0003	0.00232	4.949
7.90	-0.0077	0.0047	0.00902	3.921	0.0022	0.0007	0.00231	4.951
8.90	-0.0086	0.0045	0.00971	3.922	0.0011	-0.0002	0.00112	4.949
9.90	-0.0083	0.0047	0.00954	3.926	0.0024	0.0006	0.00247	4.950

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
5.75	-0.0030	0.0040	0.00500	3.931	0.0018	0.0010	0.00206	4.982
4.75	-0.0014	0.0013	0.00191	3.887	0.0024	0.0007	0.00250	4.883
3.75	-0.0011	-0.0019	0.00211	3.691	0.0016	0.0007	0.00175	4.698
3.25	-0.0036	-0.0055	0.00657	3.556	0.0011	0.0004	0.00117	4.578
2.75	-0.0079	-0.0073	0.01076	3.417	0.0009	-0.0006	0.00108	4.436
2.25	-0.0088	-0.0058	0.01054	3.236	0.0020	0.0005	0.00206	4.277
1.75	-0.0076	-0.0052	0.00921	2.924	0.0033	0.0013	0.00355	4.095
1.25	0.0070	0.0063	0.00942	2.577	0.0016	0.0006	0.00171	3.895

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0057	0.0020	0.00604
7.00	-0.0037	0.0041	0.00552

BASE THICKNESS (IN) 1.528

PROJECTILE LENGTH (IN) 16.654

Z1 IS DISTANCE FROM BASE (IN) .

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

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GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 82 PROJECTILE R5

INSPECTION DATE 10/27/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0051	-0.0009	0.00518	2.962	0.0007	0.0007	0.00099	4.984
2.90	-0.0020	0.0021	0.00290	3.371	0.0035	0.0042	0.00547	5.125
3.90	-0.0033	0.0037	0.00466	3.487	0.0011	0.0030	0.00320	5.126
4.90	-0.0062	0.0034	0.00707	3.603	0.0013	0.0010	0.00164	4.985
5.90	-0.0046	0.0042	0.00623	3.718	0.0007	0.0014	0.00157	4.949
6.90	-0.0017	0.0067	0.00691	3.835	0.0013	0.0009	0.00158	4.949
7.90	-0.0032	0.0065	0.00908	3.923	0.0007	0.0011	0.00130	4.949
8.90	-0.0028	0.0065	0.00990	3.926	-0.0020	0.0010	0.00224	4.949
9.90	-0.0013	0.0061	0.00919	3.933	-0.0012	0.0008	0.00144	4.949

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0022	0.0065	0.00686	3.938	0.0001	0.0012	0.00120	4.984
4.75	0.0023	0.0065	0.00689	3.905	0.0014	0.0011	0.00178	4.883
3.75	-0.0026	0.0045	0.00520	3.725	-0.0015	0.0012	0.00192	4.696
3.25	-0.0071	0.0053	0.00886	3.596	-0.0006	0.0014	0.00152	4.574
2.75	-0.0103	0.0060	0.01204	3.458	-0.0020	0.0010	0.00224	4.433
2.25	-0.0112	0.0071	0.01324	3.278	-0.0019	0.0012	0.00225	4.272
1.75	-0.0105	0.0057	0.01165	2.960	-0.0019	0.0011	0.00211	4.090
1.25	-0.0128	0.0088	0.01553	2.600	-0.0000	0.0009	0.00127	3.890

Z3	X-ACT	Y-ACT	TIP
1.00	0.0003	-0.0034	0.00341
7.00	0.0074	-0.0044	0.00341

BASE THICKNESS (IN) 1.540

PROJECTILE LENGTH (IN) 16.671

Z1 IS DISTANCE FROM BASE (IN) .

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66--0 LOT 83 PROJECTILE R1

INSPECTION DATE 10/19/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0064	0.0058	0.00864	2.983	0.0019	0.0008	0.00206	4.983
2.90	-0.0010	0.0078	0.00786	3.367	-0.0006	0.0014	0.00152	5.125
3.90	-0.0041	0.0067	0.00785	3.488	0.0014	0.0014	0.00198	5.125
4.90	-0.0051	0.0066	0.00834	3.610	0.0007	0.0011	0.00130	4.984
5.90	-0.0053	0.0039	0.00658	3.717	0.0010	0.0010	0.00141	4.955
6.90	-0.0083	0.0063	0.01042	3.834	0.0017	0.0005	0.00177	4.954
7.90	-0.0039	0.0062	0.00732	3.920	0.0007	0.0015	0.00166	4.954
8.90	-0.0042	0.0073	0.00842	3.923	-0.0001	0.0006	0.00061	4.954
9.90	-0.0023	0.0052	0.00548	3.932	0.0006	0.0011	0.00125	4.953

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0013	0.0059	0.00598	3.939	0.0001	0.0016	0.00160	4.984
4.75	0.0005	0.0107	0.01071	3.894	0.0004	0.0021	0.00214	4.886
3.75	0.0072	0.0119	0.01391	3.694	-0.0007	0.0015	0.00166	4.701
3.25	0.0100	0.0111	0.01494	3.567	-0.0007	0.0016	0.00175	4.576
2.75	0.0138	0.0093	0.01664	3.434	-0.0013	0.0009	0.00158	4.434
2.25	0.0054	0.0110	0.01447	3.252	-0.0004	0.0012	0.00126	4.274
1.75	0.0088	0.0110	0.01409	2.914	-0.0004	0.0009	0.00098	4.092
1.25	-0.0066	0.0121	0.01378	2.586	-0.0005	0.0020	0.00219	3.891

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0018	-0.0011	0.00211
7.00	-0.0060	-0.0024	0.00646

BASE THICKNESS (IN) 1.521

PROJECTILE LENGTH (IN) 16.663

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 83 PROJECTILE 82

INSPECTION DATE 10/19/70

Z1	(- - - - - INSIDE - - - - -)	(- - - - - OUTSIDE - - - - -)
	X-ACT Y-ACT TIR DIA	X-ACT Y-ACT TIR DIA
1.90	0.0067 -0.0019 0.00696 2.891	0.0039 0.0008 0.00398 4.984
2.90	0.0058 0.0001 0.00580 3.368	0.0022 0.0025 0.00333 5.124
3.90	0.0055 0.0003 0.00551 3.488	0.0027 0.0032 0.00419 5.122
4.90	0.0096 0.0025 0.00992 3.615	0.0016 0.0003 0.00163 4.986
5.90	0.0050 0.0008 0.00506 3.725	0.0036 0.0007 0.00367 4.951
6.90	0.0001 0.0007 0.00071 3.835	0.0041 0.0012 0.00427 4.950
7.90	-0.0007 0.0012 0.00139 3.924	0.0037 0.0011 0.00386 4.950
8.90	-0.0002 0.0003 0.00036 3.929	0.0032 0.0011 0.00338 4.949
9.90	-0.0008 -0.0018 0.00197 3.932	0.0032 0.0013 0.00345 4.951

Z2	(- - - - - INSIDE - - - - -)	(- - - - - OUTSIDE - - - - -)
	X-ACT Y-ACT TIR DIA	X-ACT Y-ACT TIR DIA
5.75	-0.0010 -0.0054 0.00549 3.942	0.0034 0.0024 0.00416 4.983
4.75	-0.0017 -0.0051 0.00538 3.909	0.0055 0.0027 0.00613 4.882
3.75	-0.0026 -0.0027 0.00375 3.721	0.0040 0.0023 0.00461 4.696
3.25	-0.0054 0.0008 0.00546 3.592	0.0032 0.0019 0.00372 4.574
2.75	-0.0040 0.0037 0.00545 3.459	0.0038 0.0020 0.00429 4.432
2.25	-0.0036 0.0078 0.00859 3.286	0.0037 0.0031 0.00483 4.273
1.75	0.0027 0.0156 0.01583 2.973	0.0040 0.0022 0.00457 4.092
1.25	0.0050 0.0211 0.02168 2.611	0.0046 0.0032 0.00560 3.891

Z3	X-ACT	Y-ACT	TIR
1.00	0.0018	-0.0020	0.00269
7.00	-0.0046	-0.0022	0.00510

BASE THICKNESS (IN) 1.525

PROJECTILE LENGTH (IN) 16.657

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 46-0 LCT 83 PROJECTILE 83

INSPECTION DATE 10/20/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	0.0079	-0.0258	0.03083	2.952	0.0001	0.0008	0.00081	4.984	
2.90	0.0054	-0.0158	0.02052	3.367	-0.0002	-0.0008	0.00082	5.124	
3.90	0.0063	-0.0237	0.02452	3.485	0.0002	0.0	0.00020	5.121	
4.90	-0.0037	-0.0142	0.01467	3.632	0.0	-0.0003	0.00030	4.985	
5.90	-0.0101	0.0023	0.01036	3.798	0.0006	0.0009	0.00108	4.960	
6.90	-0.0049	-0.0051	0.00707	3.896	-0.0004	0.0002	0.00045	4.956	
7.90	-0.0019	-0.0135	0.01363	3.947	-0.0007	0.0007	0.00099	4.958	
8.90	-0.0023	-0.0148	0.01516	3.954	-0.0015	-0.0001	0.00150	4.957	
9.90	0.0061	-0.0240	0.02476	3.939	-0.0011	0.0005	0.00121	4.956	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0158	-0.0383	0.04312	3.913	0.0005	0.0008	0.00094	4.982	
4.75	0.0194	-0.0324	0.03776	3.865	-0.0010	0.0008	0.00128	4.887	
3.75	0.0162	-0.0125	0.02046	3.662	-0.0016	0.0012	0.00200	4.701	
3.25	0.0172	-0.0022	0.01734	3.538	-0.0030	0.0008	0.00310	4.581	
2.75	0.0159	0.0023	0.01607	3.404	-0.0032	0.0002	0.00321	4.438	
2.25	0.0147	0.0053	0.01739	3.221	-0.0024	0.0005	0.00245	4.278	
1.75	0.0099	0.0177	0.02028	2.855	-0.0020	0.0003	0.00202	4.097	
1.25	0.0009	0.0182	0.01822	2.579	-0.0014	0.0004	0.00146	3.897	

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0030	-0.0027	0.00404
7.00	-0.0027	-0.0278	0.02793

BASE THICKNESS (IN) 1.52

PROJECTILE LENGTH (IN) 16.670

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/3R MK 66-0 LOT 83 PROJECTILE B4

INSPECTION DATE 10/22/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
1.90	-0.0276	0.0053	0.02810	2.986	-0.0003	0.0005	0.00058	4.993
2.90	-0.0327	0.0032	0.03286	3.377	0.0006	0.0003	0.00067	5.122
3.90	-0.0274	0.0013	0.02743	3.494	-0.0021	0.0007	0.00221	5.120
4.90	-0.0255	0.0010	0.02552	3.621	-0.0031	0.0012	0.00332	4.993
5.90	-0.0167	0.0024	0.01687	3.762	-0.0020	0.0002	0.00201	4.960
6.90	-0.0139	0.0028	0.01418	3.907	0.0002	0.0004	0.00045	4.962
7.90	-0.0174	0.0028	0.01762	3.955	-0.0014	0.0001	0.00140	4.960
8.90	-0.0164	0.0037	0.01681	3.961	-0.0020	0.0003	0.00202	4.959
9.90	-0.0144	0.0035	0.01482	3.969	-0.0027	0.0010	0.00288	4.961

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
5.75	-0.0242	0.0018	0.02427	3.926	-0.0019	0.0009	0.00210	4.985
4.75	-0.0206	0.0024	0.02074	3.890	-0.0015	0.0011	0.00186	4.892
3.75	-0.0094	0.0061	0.01121	3.713	-0.0017	0.0015	0.00227	4.704
3.25	-0.0010	0.0049	0.00500	3.599	-0.0026	0.0016	0.00305	4.581
2.75	0.0056	0.0028	0.00626	3.450	-0.0017	0.0013	0.00214	4.439
2.25	0.0106	0.0017	0.01074	3.274	-0.0022	0.0023	0.00318	4.277
1.75	0.0159	0.0011	0.01594	2.962	-0.0015	0.0018	0.00234	4.095
1.25	0.0200	0.0076	0.02140	2.594	-0.0032	0.0018	0.00367	3.894

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0020	0.0022	0.00297
7.00	-0.0165	-0.0103	0.02117

BASE THICKNESS (IN) 1.544

PROJECTILE LENGTH (IN) 16.663

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 83 PROJECTILE B5

INSPECTION DATE 10/26/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0111	-0.0050	0.01217	2.541	0.0015	0.0003	0.00153	4.986
2.90	-0.0104	0.0027	0.01074	3.370	0.0029	0.0031	0.00424	5.122
3.90	-0.0091	0.0030	0.00958	3.485	0.0026	0.0045	0.00520	5.121
4.90	-0.0072	0.0045	0.00849	3.605	0.0007	-0.0002	0.00073	4.984
5.90	-0.0060	0.0071	0.00930	3.720	0.0017	0.0018	0.00248	4.958
6.90	-0.0043	0.0064	0.00771	3.842	0.0007	0.0005	0.00086	4.962
7.90	-0.0036	0.0082	0.00896	3.925	0.0002	-0.0001	0.00022	4.959
8.90	-0.0043	0.0097	0.01061	3.930	0.0015	0.0016	0.00219	4.958
9.90	-0.0077	0.0098	0.01246	3.932	-0.0005	0.0010	0.00112	4.958

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0069	0.0056	0.01182	3.937	0.0007	0.0015	0.00166	4.985
4.75	-0.0020	0.0061	0.00834	3.895	0.0019	0.0013	0.00230	4.888
3.75	0.0074	0.0065	0.00985	3.753	-0.0	0.0021	0.00210	4.702
3.25	0.0119	0.0028	0.01222	3.628	-0.0001	0.0018	0.00180	4.579
2.75	0.0133	0.0014	0.01337	3.471	-0.0	0.0011	0.00110	4.436
2.25	0.0149	0.0030	0.01520	3.229	-0.0003	0.0021	0.00212	4.273
1.75	0.0176	0.0056	0.01847	2.849	0.0013	0.0018	0.00222	4.092
1.25	0.0160	0.0083	0.01802	2.573	0.0015	0.0017	0.00227	3.889

Z3 X-ACT Y-ACT TIR

1.00 -0.0014 0.0027 0.00304
7.00 0.0017 0.0043 0.00462

BASE THICKNESS (IN) 1.548

PROJECTILE LENGTH (IN) 16.648

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 46-0 LCT 84 PROJECTILE R1

INSPECTION DATE 10/23/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0022	-0.0003	0.00222	2.977	-0.0008	-0.0008	0.00113	4.985
2.90	0.0047	-0.0104	0.01141	3.376	0.0019	-0.0001	0.00190	5.127
3.90	0.0045	-0.0097	0.01069	3.489	0.0006	-0.0002	0.00063	5.124
4.90	0.0051	-0.0092	0.01052	3.606	-0.0014	0.0001	0.00140	4.986
5.90	0.0074	-0.0086	0.01135	3.722	-0.0011	-0.0004	0.00117	4.955
6.90	0.0068	-0.0073	0.00998	3.840	-0.0019	-0.0002	0.00191	4.955
7.90	0.0041	-0.0068	0.00794	3.922	-0.0011	-0.0002	0.00112	4.953
8.90	0.0030	-0.0056	0.00635	3.921	-0.0020	0.0004	0.00204	4.953
9.90	0.0030	-0.0042	0.00516	3.923	-0.0018	0.0002	0.00181	4.954

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0046	-0.0025	0.00524	3.931	-0.0012	0.0004	0.00126	4.985
4.75	0.0035	-0.0014	0.00377	3.888	-0.0010	0.0006	0.00117	4.883
3.75	-0.0012	-0.0005	0.00130	2.696	-0.0007	0.0010	0.00122	4.698
3.25	-0.0019	-0.0021	0.00283	3.566	-0.0016	0.0010	0.00189	4.575
2.75	-0.0016	-0.0053	0.00554	3.428	-0.0022	0.0013	0.00256	4.434
2.25	-0.0050	-0.0043	0.00659	3.244	-0.0030	0.0016	0.00340	4.270
1.75	-0.0092	-0.0030	0.00968	2.922	-0.0017	0.0010	0.00197	4.099
1.25	-0.0160	-0.0069	0.01742	2.587	-0.0015	0.0010	0.00180	3.886

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0055	0.0036	0.00657
7.00	-0.0019	0.0269	0.02697

BASE THICKNESS (IN) 1.524

PROJECTILE LENGTH (IN) 16.668

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT R4 PROJECTILE R2

INSPECTION DATE 10/30/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0024	0.0060	0.00646	2.975	-0.0007	0.0011	0.00130	4.984
2.90	-0.0020	0.0089	0.00912	3.381	0.0006	0.0001	0.00061	5.123
3.90	-0.0	0.0062	0.00620	3.498	0.0008	0.0006	0.00100	5.123
4.90	0.0049	0.0027	0.00559	3.614	0.0019	0.0003	0.00192	4.986
5.90	0.0075	0.0025	0.00791	3.728	0.0008	0.0001	0.00081	4.956
6.90	0.0077	0.0005	0.00772	3.845	0.0013	-0.0014	0.00191	4.959
7.90	0.0084	0.0020	0.00863	3.925	0.0023	-0.0002	0.00231	4.958
8.90	0.0089	0.0013	0.00899	3.929	-0.0002	0.0003	0.00036	4.958
9.90	0.0089	0.0014	0.00901	3.934	0.0003	-0.0004	0.00050	4.958

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0060	0.0010	0.00608	3.942	0.0007	0.0003	0.00076	4.985
4.75	0.0043	0.0002	0.00430	3.898	0.0019	-0.0005	0.00196	4.890
3.75	0.0014	-0.0016	0.00213	3.774	0.0018	-0.0006	0.00190	4.704
3.25	-0.0033	-0.0018	0.00376	3.657	-0.0001	-0.0006	0.00061	4.581
2.75	-0.0067	-0.0022	0.00705	3.500	-0.0014	-0.0005	0.00149	4.438
2.25	-0.0079	-0.0034	0.00851	3.271	0.0001	-0.0005	0.00051	4.277
1.75	-0.0068	-0.0051	0.00850	2.889	0.0005	-0.0006	0.00078	4.096
1.25	-0.0063	-0.0154	0.01664	2.581	0.0028	0.0008	0.00291	3.893

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0042	-0.0015	0.00446
7.00	-0.0183	-0.0170	0.02498

BASE THICKNESS (IN) 1.550

PROJECTILE LENGTH (IN) 16.662

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 84 PROJECTILE R3

INSPECTION DATE 10/12/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0050	-0.0162	0.01695	2.954	0.0014	0.0005	0.00149	4.984
2.90	0.0016	-0.0206	0.02066	3.357	0.0045	0.0018	0.00485	5.123
3.90	0.0045	-0.0213	0.02177	3.479	0.0041	0.0018	0.00448	5.125
4.90	0.0060	-0.0209	0.02174	3.598	0.0043	0.0003	0.00431	4.983
5.90	0.0006	-0.0127	0.01271	3.731	0.0022	-0.0001	0.00220	4.958
6.90	0.0014	-0.0089	0.00901	3.853	0.0010	0.0012	0.00156	4.960
7.90	0.0033	-0.0151	0.01546	3.926	0.0037	-0.0001	0.00370	4.956
8.90	0.0040	-0.0147	0.01523	3.931	0.0029	0.0001	0.00290	4.954
9.90	0.0028	-0.0179	0.01812	3.935	0.0031	-0.0004	0.00313	4.959

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0094	-0.0287	0.03020	3.926	0.0027	-0.0009	0.00285	4.983
4.75	0.0072	-0.0273	0.02823	3.894	0.0039	-0.0009	0.00400	4.871
3.75	-0.0008	-0.0231	0.02311	3.722	0.0037	-0.0008	0.00379	4.705
3.25	-0.0011	-0.0186	0.01863	3.605	0.0019	-0.0009	0.00210	4.582
2.75	-0.0023	-0.0109	0.01114	3.480	0.0023	-0.0003	0.00232	4.440
2.25	-0.0041	-0.0053	0.00670	3.308	0.0032	-0.0002	0.00321	4.279
1.75	-0.0019	0.0013	0.00230	2.995	0.0039	-0.0011	0.00396	4.095
1.25	-0.0022	0.0060	0.00639	2.659	0.0027	-0.0013	0.00300	3.893

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0027	-0.0011	0.00292
7.00	-0.0232	0.0051	0.02375

BASE THICKNESS (IN) 1.520

PROJECTILE LENGTH (IN) 16.667

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 60-0 LCT 84 PROJECTILE B4

INSPECTION DATE 10/26/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0214	-0.0400	0.04536	2.932	0.0017	-0.0023	0.00286	4.983
2.90	-0.0009	-0.0169	0.01692	3.351	0.0011	-0.0010	0.00149	5.123
3.90	-0.0018	-0.0242	0.02427	3.470	0.0026	-0.0013	0.00291	5.126
4.90	-0.0069	-0.0153	0.01678	3.603	0.0017	-0.0018	0.00248	4.984
5.90	-0.0137	0.0129	0.01882	3.824	0.0024	-0.0010	0.00260	4.966
6.90	-0.0104	0.0004	0.01041	3.883	0.0035	-0.0017	0.00389	4.966
7.90	-0.0070	-0.0200	0.02119	3.940	0.0038	-0.0007	0.00386	4.965
8.90	-0.0062	-0.0211	0.02199	3.945	0.0016	-0.0018	0.00241	4.967
9.90	-0.0034	-0.0246	0.02483	3.948	0.0018	-0.0022	0.00284	4.965

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0013	-0.0249	0.02492	3.951	0.0035	-0.0022	0.00413	4.985
4.75	0.0006	-0.0124	0.01241	3.923	0.0047	-0.0010	0.00481	4.898
3.75	0.0006	-0.0355	0.03551	3.694	0.0027	-0.0024	0.00361	4.710
3.25	-0.0054	-0.0355	0.03591	3.561	0.0020	-0.0028	0.00344	4.589
2.75	-0.0113	-0.0329	0.03479	3.429	0.0030	-0.0022	0.00372	4.448
2.25	-0.0139	-0.0299	0.02297	3.258	0.0024	-0.0032	0.00400	4.285
1.75	-0.0228	-0.0236	0.02281	2.960	0.0050	-0.0032	0.00594	4.103
1.25	-0.0137	-0.0208	0.02491	2.611	0.0042	-0.0023	0.00479	3.902

Z3 X-ACT Y-ACT TIR

1.00 0.0021 -0.0012 0.00247
7.00 -0.0090 0.0142 0.01681

BASE THICKNESS (IN) 1.532

PROJECTILE LENGTH (IN) 16.654

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/79 MK 66-0 LOT R4 PROJECTILE R5

INSPECTION DATE 10/30/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
71	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0086	0.0041	0.00953	2.994	0.0016	-0.0001	0.00160	4.985
2.90	-0.0095	0.0070	0.01180	3.380	0.0042	0.0016	0.00449	5.125
3.90	-0.0066	0.0032	0.00733	3.493	0.0012	0.0011	0.00163	5.120
4.90	-0.0125	0.0036	0.01301	3.614	0.0011	0.0007	0.00130	4.985
5.90	-0.0127	0.0041	0.01335	3.728	0.0006	0.0004	0.00072	4.959
6.90	-0.0143	0.0046	0.01502	3.842	0.0008	0.0008	0.00113	4.959
7.90	-0.0122	0.0052	0.01326	3.924	0.0016	0.0011	0.00194	4.960
8.90	-0.0150	0.0042	0.01559	3.926	0.0006	0.0012	0.00134	4.959
9.90	-0.0137	0.0040	0.01427	3.932	-0.0002	0.0009	0.00092	4.961

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
22	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0110	0.0030	0.01140	3.935	0.0032	0.0011	0.00338	4.985
4.75	-0.0098	0.0014	0.00990	3.889	0.0019	0.0010	0.00215	4.891
3.75	-0.0042	0.0009	0.00430	3.752	0.0012	0.0007	0.00139	4.705
3.25	-0.0003	0.0027	0.00272	3.629	-0.0002	0.0010	0.00102	4.583
2.75	0.0062	0.0052	0.00809	3.468	0.0012	0.0012	0.00170	4.441
2.25	0.0053	0.0064	0.00831	3.236	-0.0002	0.0011	0.00112	4.280
1.75	0.0057	0.0083	0.01007	2.855	0.0013	0.0009	0.00201	4.038
1.25	0.0018	-0.0131	0.01322	2.572	0.0022	0.0010	0.00242	3.896

23	X-ACT	Y-ACT	TIR
1.00	0.0021	0.0032	0.00383
7.00	0.0104	0.0255	0.02754

BASE THICKNESS (IN) 1.540

PROJECTILE LENGTH (IN) 16.659

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT E5 PROJECTILE B2

INSPECTION DATE 11/25/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0030	0.0024	0.00384	3.032	0.0011	-0.0006	0.00125	4.987
2.90	0.0044	0.0041	0.00601	3.375	0.0019	0.0007	0.00202	5.127
3.90	-0.0003	0.0023	0.00232	3.454	0.0018	0.0006	0.00190	5.126
4.90	-0.0047	-0.0007	0.00475	3.606	-0.0014	-0.0008	0.00161	4.984
5.90	-0.0078	-0.0015	0.00794	3.720	0.0016	0.0003	0.00163	4.959
6.90	-0.0074	-0.0022	0.00772	3.835	0.0012	0.0006	0.00134	4.960
7.90	-0.0084	-0.0018	0.00859	3.919	0.0022	-0.0	0.00220	4.959
8.90	-0.0115	-0.0006	0.01152	3.921	0.0006	0.0003	0.00067	4.959
9.90	-0.0116	-0.0024	0.01185	3.927	0.0006	0.0009	0.00108	4.960

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0141	-0.0032	0.01446	3.938	0.0017	0.0	0.00170	4.985
4.75	-0.0100	-0.0047	0.01105	3.893	0.0019	0.0001	0.00190	4.887
3.75	-0.0090	-0.0061	0.01087	3.704	0.0005	-0.0001	0.00051	4.700
3.25	-0.0089	-0.0062	0.01168	3.578	0.0004	0.0006	0.00072	4.578
2.75	-0.0109	-0.0061	0.01249	3.435	0.0007	0.0006	0.00092	4.436
2.25	-0.0092	-0.0034	0.00981	3.249	-0.0013	0.0006	0.00143	4.277
1.75	-0.0011	0.0054	0.00551	2.915	0.0002	0.0	0.00020	4.093
1.25	-0.0034	0.0120	0.01344	2.590	0.0018	0.0010	0.00206	3.893

Z3	X-ACT	Y-ACT	TIR
1.00	0.0020	0.0029	0.00352
7.00	-0.0020	-0.0150	0.01513

BASE THICKNESS (IN) 1.451

PROJECTILE LENGTH (IN) 16.665

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-C LOT 85 PROJECTILE B3

INSPECTION DATE 11/17/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0526	-0.0036	0.05272	2.860	-0.0004	-0.0006	0.00072	4.984
2.90	-0.0208	0.0035	0.02109	3.357	-0.0001	0.0026	0.00260	5.124
3.90	-0.0261	0.0018	0.02616	3.474	-0.0016	0.0030	0.00340	5.126
4.90	-0.0245	0.0024	0.02462	3.600	-0.0012	-0.0004	0.00126	4.985
5.90	0.0070	0.0142	0.01583	3.792	0.0002	0.0002	0.00028	4.950
6.90	-0.0002	0.0111	0.01110	3.883	-0.0002	-0.0001	0.00022	4.950
7.90	-0.0199	0.0001	0.01990	3.942	-0.0021	-0.0003	0.00212	4.948
8.90	-0.0212	-0.0008	0.02122	3.947	-0.0034	-0.0011	0.00357	4.950
9.90	-0.0225	-0.0021	0.02260	3.950	-0.0033	-0.0009	0.00342	4.949

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0292	-0.0134	0.03213	3.934	-0.0021	-0.0012	0.00242	4.985
4.75	-0.0251	-0.0129	0.02822	3.886	-0.0033	-0.0012	0.00351	4.882
3.75	-0.0225	-0.0110	0.02504	3.698	-0.0029	-0.0006	0.00296	4.694
3.25	-0.0232	-0.0147	0.02747	3.582	-0.0051	-0.0019	0.00544	4.568
2.75	-0.0254	-0.0164	0.03023	3.459	-0.0055	-0.0013	0.00565	4.426
2.25	-0.0279	-0.0159	0.03211	3.296	-0.0047	-0.0015	0.00493	4.266
1.75	-0.0277	-0.0155	0.03174	2.998	-0.0050	-0.0018	0.00531	4.082
1.25	-0.0255	-0.0142	0.02919	2.662	-0.0055	-0.0021	0.00589	3.881

Z3 X-ACT Y-ACT TIR

1.00 -0.0092 -0.0051 0.01052
7.00 -0.0067 -0.0054 0.00861

BASE THICKNESS (IN) 1.515

PROJECTILE LENGTH (IN) 16.659

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 85 PROJECTILE B5

INSPECTION DATE 11/13/70

Z1	(- - - - - INSIDE - - - - -)	(- - - - - OUTSIDE - - - - -)
	X-ACT Y-ACT TIR DIA	X-ACT Y-ACT TIR DIA
1.90	0.0111 0.0109 0.01556 2.936	-0.0010 0.0 0.00100 4.981
2.90	0.0008 0.0078 0.00784 3.378	0.0039 -0.0017 0.00425 5.124
3.90	0.0036 0.0079 0.00868 3.495	0.0013 -0.0017 0.00214 5.126
4.90	0.0044 0.0082 0.00931 3.611	0.0018 -0.0001 0.00180 4.983
5.90	0.0064 0.0075 0.00986 3.727	0.0015 -0.0008 0.00170 4.952
6.90	0.0096 0.0097 0.01365 3.843	0.0024 -0.0006 0.00247 4.951
7.90	0.0106 0.0084 0.01352 3.926	0.0024 0.0001 0.00240 4.951
8.90	0.0101 0.0087 0.01333 3.933	0.0013 -0.0007 0.00148 4.951
9.90	0.0088 0.0075 0.01156 3.940	0.0005 0.0001 0.00051 4.951

Z2	(- - - - - INSIDE - - - - -)	(- - - - - OUTSIDE - - - - -)
	X-ACT Y-ACT TIR DIA	X-ACT Y-ACT TIR DIA
5.75	0.0077 0.0082 0.01125 3.948	0.0021 0.0001 0.00210 4.985
4.75	0.0056 0.0053 0.00771 3.894	0.0025 0.0005 0.00255 4.885
3.75	0.0025 0.0037 0.00447 3.757	0.0020 0.0007 0.00212 4.698
3.25	0.0013 0.0016 0.00206 3.637	0.0010 0.0003 0.00104 4.574
2.75	-0.0019 -0.0020 0.00276 3.484	0.0002 0.0003 0.00036 4.434
2.25	-0.0020 -0.0037 0.00421 3.250	0.0017 0.0013 0.00214 4.274
1.75	0.0001 -0.0050 0.00500 2.883	0.0014 0.0008 0.00161 4.091
1.25	0.0087 0.0070 0.01117 2.575	0.0027 0.0012 0.00295 3.892

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0006	-0.0008	0.00100
7.00	0.0167	-0.0139	0.02173

BASE THICKNESS (IN) 1.585

PROJECTILE LENGTH (IN) 16.686

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 86 PROJECTILE B1

INSPECTION DATE 11/17/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0127	-0.0302	0.03276	2.980	0.0005	0.0007	0.00086	4.985
2.90	-0.0116	-0.0180	0.02141	3.360	0.0026	0.0041	0.00485	5.124
3.90	-0.0117	-0.0227	0.02554	3.480	0.0001	0.0032	0.00320	5.122
4.90	-0.0112	-0.0096	0.01475	3.614	-0.0001	0.0002	0.00022	4.984
5.90	-0.0058	0.0228	0.02353	3.834	0.0004	0.0017	0.00175	4.953
6.90	-0.0055	0.0217	0.02239	3.944	0.0017	0.0011	0.00202	4.951
7.90	-0.0040	0.0112	0.01189	3.976	0.0022	0.0011	0.00246	4.952
8.90	-0.0063	0.0102	0.01199	3.977	0.0015	0.0013	0.00198	4.949
9.90	-0.0075	0.0057	0.00942	3.963	0.0013	0.0003	0.00133	4.949

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0037	-0.0195	0.01985	3.919	0.0030	0.0012	0.00323	4.986
4.75	-0.0025	-0.0148	0.01501	3.856	0.0010	0.0002	0.00102	4.882
3.75	0.0072	-0.0149	0.01655	3.653	0.0017	0.0005	0.00177	4.694
3.25	0.0074	-0.0140	0.01584	3.528	0.0019	0.0004	0.00194	4.569
2.75	0.0079	-0.0117	0.01412	3.390	0.0018	-0.0002	0.00181	4.428
2.25	0.0091	-0.0115	0.01466	3.206	0.0021	0.0003	0.00212	4.226
1.75	0.0124	-0.0100	0.01593	2.880	0.0015	-0.0004	0.00155	4.085
1.25	0.0071	-0.0133	0.01508	2.571	0.0033	-0.0005	0.00334	3.884

Z3	X-ACT	Y-ACT	TIR
1.00	0.0059	0.0	0.00590
7.00	0.0026	-0.0061	0.00663

BASE THICKNESS (IN) 1.475

PROJECTILE LENGTH (IN) 16.655

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 86-0 LOT 86 PROJECTILE 83

INSPECTION DATE 11/20/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
1.90	-0.0068	-0.0139	0.01547	2.988	-0.0003	0.0	0.00030	4.986
2.90	-0.0070	-0.0110	0.01304	3.376	0.0024	0.0011	0.00264	5.123
3.90	-0.0054	-0.0137	0.01473	3.493	-0.0013	0.0002	0.00132	5.121
4.90	-0.0132	-0.0166	0.02121	3.612	-0.0010	0.0003	0.00104	4.983
5.90	-0.0125	-0.0160	0.02030	3.727	-0.0018	0.0006	0.00190	4.953
6.90	-0.0100	-0.0164	0.01921	3.843	0.0006	-0.0002	0.00063	4.952
7.90	-0.0083	-0.0141	0.01636	3.925	-0.0008	0.0010	0.00128	4.952
8.90	-0.0078	-0.0157	0.01753	3.928	-0.0023	-0.0004	0.00233	4.951
9.90	-0.0083	-0.0160	0.01802	3.931	0.0001	-0.0002	0.00022	4.951

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
5.75	-0.0050	-0.0168	0.01753	3.935	-0.0026	-0.0006	0.00267	4.985
4.75	-0.0034	-0.0130	0.01344	3.886	-0.0010	-0.0	0.00100	4.887
3.75	-0.0006	-0.0110	0.01102	3.747	-0.0016	-0.0001	0.00160	4.702
3.25	0.0006	-0.0118	0.01182	3.622	-0.0011	0.0002	0.00112	4.578
2.75	-0.0005	-0.0112	0.01121	3.463	0.0022	0.0016	0.00272	4.443
2.25	0.0016	-0.0079	0.00806	3.223	-0.0026	-0.0003	0.00262	4.278
1.75	-0.0020	-0.0057	0.00604	2.863	-0.0018	-0.0001	0.00180	4.098
1.25	-0.0128	0.0039	0.01338	2.571	-0.0017	0.0001	0.00170	3.898

Z3 X-ACT Y-ACT TIR

1.00	-0.0028	0.0018	0.00333
7.00	-0.0040	0.0216	0.02197

BASE THICKNESS (IN) 1.514

PROJECTILE LENGTH (IN) 16.644

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 86 PROJECTILE B4

INSPECTION DATE 11/25/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1 90	-0.0134	-0.0034	0.01382	2.998	0.0015	0.0009	0.00175	4.983
2 90	-0.0079	0.0011	0.00798	3.378	-0.0003	-0.0004	0.00050	5.123
3 90	-0.0072	0.0004	0.00721	3.497	0.0002	0.0009	0.00092	5.126
4 90	-0.0074	0.0017	0.00759	3.612	-0.0004	0.0005	0.00064	4.982
5 90	-0.0045	0.0016	0.00478	3.726	-0.0004	-0.0006	0.00072	4.960
6 90	0.0006	0.0028	0.00286	3.845	0.0011	-0.0004	0.00117	4.958
7 90	0.0020	0.0027	0.00336	3.928	-0.0002	0.0001	0.00022	4.960
8 90	0.0045	0.0042	0.00616	3.933	-0.0004	-0.0003	0.00050	4.960
9 90	0.0047	0.0050	0.00686	3.942	-0.0013	-0.0	0.00130	4.960

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0078	0.0072	0.01062	3.949	0.0005	0.0	0.00050	4.985
4.75	0.0086	0.0070	0.01109	3.906	0.0006	0.0012	0.00134	4.888
3.75	0.0059	0.0002	0.00590	3.707	-0.0007	0.0004	0.00081	4.702
3.25	0.0015	0.0008	0.00170	3.577	-0.0015	0.0007	0.00166	4.581
2.75	-0.0011	0.0017	0.00202	3.442	-0.0019	0.0002	0.00191	4.439
2.25	-0.0033	-0.0006	0.00335	3.261	-0.0004	0.0004	0.00057	4.275
1.75	-0.0058	-0.0041	0.00710	2.931	-0.0016	0.0005	0.00168	4.096
1.25	-0.0075	0.0012	0.00760	2.599	-0.0014	0.0004	0.00146	3.891

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0021	-0.0010	0.00233
7.00	0.0161	-0.0167	0.02320

BASE THICKNESS (IN) 1.518

PROJECTILE LENGTH (IN) 16.658

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-O LCT 86 PROJECTILE B5

INSPECTION DATE 11/19/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0333	-0.0265	0.04256	2.876	-0.0004	-0.0002	0.00045	4.986
2.90	-0.0400	-0.0236	0.04644	3.359	0.0010	-0.0009	0.00135	5.128
3.90	-0.0190	-0.0031	0.01925	3.523	0.0026	-0.0005	0.00265	5.125
4.90	-0.0066	0.0064	0.00919	3.689	-0.0005	-0.0006	0.00078	4.985
5.90	0.0058	0.0087	0.01046	3.847	0.0012	0.0005	0.00130	4.957
6.90	-0.0028	0.0066	0.00717	3.921	0.0018	-0.0002	0.00181	4.959
7.90	-0.0098	0.0013	0.00989	3.974	0.0011	-0.0005	0.00121	4.956
8.90	-0.0091	0.0014	0.00921	3.972	0.0014	-0.0004	0.00146	4.956
9.90	-0.0182	-0.0034	0.01851	3.948	-0.0006	-0.0	0.00060	4.958

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0245	-0.0185	0.03070	3.935	0.0023	0.0006	0.00238	4.987
4.75	-0.0206	-0.0167	0.02652	3.910	0.0019	0.0013	0.00230	4.890
3.75	-0.0130	-0.0188	0.02286	3.748	0.0010	0.0009	0.00135	4.703
3.25	-0.0147	-0.0185	0.02363	3.634	0.0002	0.0004	0.00045	4.576
2.75	-0.0172	-0.0170	0.02418	3.502	0.0004	0.0006	0.00072	4.434
2.25	-0.0194	-0.0158	0.02502	3.330	-0.0002	0.0001	0.00022	4.271
1.75	-0.0137	-0.0250	0.02851	3.020	0.0014	0.0004	0.00146	4.089
1.25	-0.0015	-0.0256	0.02564	2.651	0.0015	0.0002	0.00151	3.886

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0003	0.0051	0.00511
7.00	0.0012	0.0145	0.01455

BASE THICKNESS (IN) 1.591

PROJECTILE LENGTH (IN) 16.726

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/39 MK 66-0 LCT 27 PROJECTILE R1

INSPECTION DATE 11/16/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0145	-0.0028	0.01477	2.939	0.0008	0.0019	0.00206	4.984
2.90	0.0095	0.0015	0.00962	3.379	0.0007	0.0023	0.00240	5.122
3.90	-0.0001	0.0008	0.00081	3.497	0.0013	0.0016	0.00206	5.123
4.90	-0.0100	-0.0008	0.01003	3.619	0.0007	0.0005	0.00086	4.984
5.90	-0.0105	0.0018	0.01065	3.734	-0.0012	0.0009	0.00150	4.955
6.90	-0.0035	-0.0009	0.00361	3.852	0.0010	0.0018	0.00206	4.958
7.90	-0.0086	-0.0021	0.00885	3.947	0.0019	0.0014	0.00236	4.956
8.90	-0.0117	-0.0049	0.01268	3.949	0.0017	0.0013	0.00214	4.956
9.90	-0.0142	-0.0107	0.01778	3.960	0.0017	0.0008	0.00188	4.958

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0173	-0.0187	0.02548	3.965	0.0015	0.0	0.00150	4.985
4.75	-0.0184	-0.0202	0.02732	3.919	0.0011	0.0	0.00110	4.886
3.75	-0.0228	-0.0094	0.02466	3.756	0.0015	0.0002	0.00151	4.697
3.25	-0.0197	-0.0038	0.02006	3.647	0.0006	-0.0	0.00060	4.575
2.75	-0.0142	0.0001	0.01420	3.523	0.0009	-0.0002	0.00092	4.432
2.25	-0.0145	0.0079	0.01651	3.353	0.0006	-0.0005	0.00078	4.270
1.75	-0.0118	0.0191	0.02245	3.041	0.0015	-0.0	0.00150	4.087
1.25	-0.0139	0.0217	0.02577	2.696	0.0020	0.0001	0.00200	3.884

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0030	0.0020	0.00361
7.00	0.0027	-0.0045	0.00583

BASE THICKNESS (IN) 1.541

PROJECTILE LENGTH (IN) 16.649

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 87 PROJECTILE R2

INSPECTION DATE 11/25/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
21	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0007	0.0073	0.00733	2.999	-0.0002	-0.0003	0.00036	4.986
2.90	0.0113	0.0043	0.01209	3.382	0.0	0.0018	0.00180	5.126
3.90	0.0050	0.0017	0.00528	3.501	-0.0012	0.0010	0.00156	5.125
4.90	-0.0004	-0.0012	0.00126	3.619	-0.0001	0.0008	0.00081	4.986
5.90	-0.0018	-0.0041	0.00448	3.736	-0.0014	0.0002	0.00141	4.956
6.90	-0.0007	-0.0064	0.00644	3.849	-0.0012	0.0006	0.00134	4.956
7.90	-0.0022	-0.0086	0.00888	3.928	-0.0031	-0.0002	0.00311	4.955
8.90	-0.0023	-0.0088	0.00910	3.932	-0.0025	-0.0002	0.00251	4.953
9.90	-0.0032	-0.0102	0.01069	3.936	-0.0036	-0.0003	0.00361	4.953

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
22	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0005	-0.0080	0.00802	3.939	0.0004	0.0005	0.00064	4.985
4.75	-0.0009	-0.0072	0.00726	3.888	-0.0010	0.0013	0.00164	4.884
3.75	-0.0030	-0.0069	0.00752	3.683	-0.0025	0.0018	0.00308	4.700
2.75	0.0006	-0.0037	0.00375	3.550	-0.0026	0.0016	0.00305	4.577
2.75	0.0013	-0.0027	0.00300	3.409	-0.0	0.0026	0.00260	4.438
2.25	0.0012	-0.0050	0.00514	3.233	-0.0031	0.0013	0.00336	4.276
1.75	-0.0028	-0.0059	0.01029	2.913	-0.0034	0.0014	0.00368	4.096
1.25	0.0067	0.0060	0.00899	2.577	-0.0043	0.0019	0.00470	3.895

23	X-ACT	Y-ACT	TIR
1.00	-0.0094	0.0043	0.01034
7.00	-0.0086	0.0124	0.01509

BASE THICKNESS (IN) 1.536

PROJECTILE LENGTH (IN) 16.666

21 IS DISTANCE FROM BASE (IN)

22 IS DISTANCE FROM NOSE (IN)

23 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT #7 PROJECTILE 84

INSPECTION DATE 11/19/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
71	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.50	-0.0078	-0.0078	0.01103	2.874	0.0012	-0.0013	0.00177	4.985
2.90	-0.0030	0.0058	0.00652	3.381	0.0019	-0.0014	0.00236	5.126
3.90	-0.0002	0.0038	0.00381	3.494	0.0040	-0.0023	0.00461	5.124
4.90	-0.0010	0.0011	0.00149	3.609	-0.0005	-0.0003	0.00058	4.987
5.90	0.0025	0.0040	0.00472	3.716	-0.0008	-0.0012	0.00144	4.961
6.90	0.0033	0.0036	0.00488	3.837	-0.0012	-0.0012	0.00170	4.959
7.90	0.0054	-0.0005	0.00542	3.920	0.0001	-0.0016	0.00160	4.958
8.90	0.0043	-0.0029	0.00519	3.924	-0.0009	-0.0010	0.00135	4.958
9.90	0.0034	-0.0051	0.00613	3.928	-0.0020	-0.0018	0.00269	4.958

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
72	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0049	-0.0080	0.00938	3.932	-0.0008	-0.0011	0.00136	4.983
4.75	0.0036	-0.0050	0.00616	3.891	-0.0006	-0.0008	0.00100	4.888
3.75	0.0012	-0.0031	0.00332	3.752	-0.0018	-0.0002	0.00181	4.702
3.25	0.0029	-0.0010	0.00307	3.628	-0.0019	-0.0007	0.00202	4.579
2.75	0.0007	0.0019	0.00202	3.472	-0.0020	-0.0011	0.00228	4.437
2.25	-0.0009	0.0009	0.00127	3.233	-0.0017	-0.0012	0.00208	4.276
1.75	-0.0031	0.0037	0.00483	2.861	-0.0004	-0.0017	0.00175	4.096
1.25	0.0102	-0.0018	0.01036	2.576	-0.0006	-0.0018	0.00190	3.894

73	X-ACT	Y-ACT	TIR
1.00	-0.0064	0.0007	0.00644
7.00	-0.0260	0.0124	0.02891

BASE THICKNESS (IN) 1.520

PROJECTILE LENGTH (IN) 16.673

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 87 PROJECTILE B5

INSPECTION DATE 11/12/70

Z1	(- - - - - INSIDE - - - - -)	(- - - - - OUTSIDE - - - - -)
	X-ACT Y-ACT TIR DIA	X-ACT Y-ACT TIR DIA
1.90	-0.0024 -0.0020 0.00312	2.903 -0.0026 0.0004 0.00263 4.982
2.90	-0.0025 0.0020 0.00320	3.365 -0.0042 -0.0034 0.00540 5.124
3.90	0.0009 0.0007 0.00114	3.487 -0.0047 -0.0016 0.00496 5.124
4.90	-0.0015 -0.0007 0.00166	3.601 -0.0021 -0.0001 0.00210 4.986
5.90	0.0024 -0.0021 0.00319	3.718 -0.0 -0.0 0.0 4.953
6.90	0.0013 -0.0018 0.00222	3.834 -0.0002 -0.0008 0.00082 4.952
7.90	0.0034 -0.0011 0.00357	3.925 -0.0018 -0.0002 0.00181 4.952
8.90	0.0029 0.0001 0.00290	3.923 -0.0028 -0.0008 0.00291 4.952
9.90	0.0046 0.0027 0.00533	3.932 -0.0033 -0.0005 0.00334 4.952

Z2	(- - - - - INSIDE - - - - -)	(- - - - - OUTSIDE - - - - -)
	X-ACT Y-ACT TIR DIA	X-ACT Y-ACT TIR DIA
5.75	0.0058 0.0028 0.00693	3.941 -0.0031 -0.0002 0.00311 4.986
4.75	0.0087 0.0055 0.01029	3.906 -0.0028 -0.0007 0.00289 4.888
3.75	0.0027 0.0060 0.00658	3.714 -0.0029 -0.0003 0.00292 4.702
3.25	0.0009 0.0020 0.00219	3.590 -0.0036 0.0003 0.00361 4.579
2.75	-0.0032 -0.0013 0.00345	3.454 -0.0040 -0.0 0.00400 4.437
2.25	-0.0036 -0.0020 0.00412	3.273 -0.0040 0.0002 0.00400 4.280
1.75	-0.0044 -0.0062 0.00760	2.928 -0.0038 0.0003 0.00381 4.097
1.25	-0.0075 -0.0142 0.01606	2.584 -0.0036 0.0005 0.00363 3.896

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0008	-0.0014	0.00161
7.00	0.0223	0.0043	0.02271

BASE THICKNESS (IN) 1.567

PROJECTILE LENGTH (IN) 16.666

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 88 PROJECTILE R1

INSPECTION DATE 11/12/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0057	0.0156	0.01661	2.958	0.0024	-0.0013	0.00273	4.986
2.90	-0.0005	0.0156	0.01561	3.378	0.0021	0.0017	0.00270	5.126
3.90	0.0044	0.0144	0.01506	3.492	0.0057	0.0050	0.00758	5.124
4.90	0.0066	0.0152	0.01657	3.608	0.0014	-0.0002	0.00141	4.987
5.90	0.0073	0.0148	0.01650	3.720	0.0017	-0.0003	0.00173	4.955
6.90	0.0078	0.0134	0.01550	3.839	0.0024	0.0002	0.00241	4.957
7.90	0.0065	0.0141	0.01553	3.928	0.0042	0.0010	0.00432	4.956
8.90	0.0060	0.0137	0.01496	3.931	0.0029	0.0002	0.00291	4.958
9.90	0.0051	0.0141	0.01499	3.937	0.0028	0.0004	0.00283	4.955

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0071	0.0173	0.01870	3.940	0.0033	0.0009	0.00342	4.986
4.75	0.0123	0.0147	0.01917	3.899	0.0035	0.0001	0.00350	4.888
3.75	0.0183	0.0083	0.02009	3.706	0.0034	-0.0	0.00340	4.701
3.25	0.0176	0.0022	0.01774	3.584	0.0017	0.0003	0.00173	4.579
2.75	0.0151	-0.0006	0.01511	3.449	0.0023	0.0012	0.00259	4.437
2.25	0.0126	-0.0009	0.01263	3.276	0.0027	0.0001	0.00270	4.275
1.75	0.0115	-0.0025	0.01177	2.958	0.0026	0.0009	0.00275	4.094
1.25	0.0085	0.0035	0.00819	2.612	0.0038	0.0003	0.00381	3.891

Z3	X-ACT	Y-ACT	TIR
1.00	0.0043	0.0045	0.00622
7.00	0.0028	0.0063	0.00689

BASE THICKNESS (IN) 1.563

PROJECTILE LENGTH (IN) 16.667

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 88 PROJECTILE B2

INSPECTION DATE 11/16/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0129	0.0095	0.01602	2.578	-0.0007	0.0004	0.00081	4.982
2.90	0.0044	0.0074	0.00861	3.378	0.0027	0.0026	0.00375	5.123
3.90	0.0034	0.0082	0.00888	3.496	-0.0017	0.0028	0.00328	5.127
4.90	0.0013	0.0079	0.00801	3.614	-0.0035	0.0005	0.00354	4.986
5.90	0.0018	0.0078	0.00800	3.727	-0.0017	0.0	0.00170	4.955
6.90	0.0028	0.0091	0.00952	3.842	0.0005	0.0001	0.00051	4.958
7.90	0.0015	0.0083	0.00843	3.927	0.0009	-0.0012	0.00150	4.954
8.90	0.0020	0.0073	0.00757	3.929	-0.0015	-0.0009	0.00175	4.955
9.90	-0.0009	0.0061	0.00617	3.935	-0.0018	-0.0008	0.00197	4.958

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0012	0.0066	0.00671	3.944	-0.0012	-0.0004	0.00126	4.986
4.75	0.0	0.0066	0.00660	3.907	-0.0010	-0.0005	0.00112	4.887
3.75	0.0012	0.0052	0.00534	3.710	-0.0019	-0.0016	0.00248	4.702
3.25	0.0023	0.0003	0.00232	3.578	-0.0021	-0.0012	0.00242	4.579
2.75	0.0017	-0.0031	0.00354	3.436	-0.0026	-0.0017	0.00311	4.437
2.25	0.0012	-0.0035	0.00370	3.255	-0.0019	-0.0013	0.00230	4.275
1.75	0.0022	-0.0033	0.00397	2.933	-0.0010	-0.0018	0.00206	4.093
1.25	0.0086	0.0007	0.00863	2.577	-0.0010	-0.0015	0.00180	3.891

Z3	X-ACT	Y-ACT	TIR
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1.00	-0.0014	0.0012	0.00184
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7.00	0.0193	-0.0067	0.02043
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BASE THICKNESS (IN) 1.559

PROJECTILE LENGTH (IN) 16.664

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 88 PROJECTILE B4

INSPECTION DATE 11/12/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0050	0.0082	0.01010	2.970	0.0014	-0.0006	0.00152	4.982
2.90	-0.0062	0.0043	0.00755	3.379	0.0034	0.0018	0.00385	5.125
3.90	-0.0063	0.0039	0.00741	3.496	0.0023	-0.0	0.00230	5.125
4.90	-0.0086	0.0032	0.00918	3.612	0.0010	0.0006	0.00117	4.983
5.90	-0.0078	0.0028	0.00829	3.728	0.0038	0.0012	0.00398	4.961
6.90	-0.0076	0.0029	0.00854	3.848	0.0052	0.0016	0.00544	4.958
7.90	-0.0065	0.0025	0.00738	3.928	0.0040	0.0013	0.00421	4.958
8.90	-0.0072	0.0017	0.00740	3.927	0.0032	0.0012	0.00342	4.959
9.90	-0.0063	0.0013	0.00643	3.930	0.0043	0.0024	0.00492	4.958

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0004	0.0022	0.00224	3.932	0.0039	0.0012	0.00408	4.984
4.75	0.0022	0.0009	0.00238	3.893	0.0061	0.0011	0.00620	4.888
3.75	0.0028	-0.0013	0.00309	3.770	0.0048	0.0022	0.00528	4.700
3.25	0.0012	-0.0027	0.00389	3.646	0.0055	0.0017	0.00576	4.579
2.75	-0.0022	-0.0041	0.00465	3.487	0.0044	0.0014	0.00462	4.438
2.25	0.0021	-0.0041	0.00461	3.237	0.0057	0.0016	0.00592	4.273
1.75	0.0065	0.0034	0.00734	2.856	0.0029	0.0001	0.00290	4.096
1.25	0.0198	-0.0012	0.01984	2.577	0.0065	0.0023	0.00689	3.892

Z3	X-ACT	Y-ACT	TIR
1.00	0.0043	0.0011	0.00444
7.00	0.0023	0.0046	0.00514

BASE THICKNESS (IN) 1.557

PROJECTILE LENGTH (IN) 16.659

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 89 PROJECTILE R2

INSPECTION DATE 11/23/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
71	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0133	-0.0096	0.01640	3.688	-0.0002	-0.0010	0.00102	4.983
2.90	-0.0089	-0.0085	0.01231	3.368	-0.0005	-0.0016	0.00168	5.121
3.90	-0.0108	-0.0043	0.01162	3.489	-0.0015	-0.0003	0.00153	5.121
4.90	-0.0165	0.0002	0.01650	3.605	-0.0012	-0.0007	0.00139	4.983
5.90	-0.0150	0.0018	0.01511	3.717	-0.0011	-0.0011	0.00156	4.955
6.90	-0.0142	0.0029	0.01449	3.832	-0.0013	-0.0008	0.00153	4.955
7.90	-0.0141	0.0032	0.01446	3.917	-0.0007	-0.0008	0.00106	4.953
8.90	-0.0137	0.0039	0.01424	3.917	-0.0025	-0.0009	0.00266	4.951
9.90	-0.0110	0.0064	0.01272	3.918	-0.0023	-0.0007	0.00240	4.953

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
22	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0120	0.0051	0.01304	3.932	-0.0024	-0.0014	0.00278	4.985
4.75	-0.0103	0.0043	0.01116	3.898	-0.0032	-0.0016	0.00358	4.885
3.75	-0.0089	0.0042	0.00984	3.710	-0.0031	-0.0007	0.00318	4.697
3.25	-0.0089	0.0058	0.01062	3.585	-0.0032	-0.0010	0.00335	4.572
2.75	-0.0074	0.0072	0.01032	3.442	-0.0042	-0.0011	0.00434	4.432
2.25	-0.0061	0.0062	0.00870	3.251	-0.0032	-0.0008	0.00330	4.270
1.75	-0.0035	0.0045	0.00570	2.902	-0.0039	-0.0011	0.00405	4.085
1.25	-0.0057	-0.0054	0.00785	2.593	-0.0034	-0.0006	0.00345	3.883

23	X-ACT	Y-ACT	TIR
1.00	-0.0038	-0.0003	0.00381
7.00	0.0205	-0.0007	0.02051

BASE THICKNESS (IN) 1.4 5

PROJECTILE LENGTH (IN) 16.653

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 89 PROJECTILE 83

INSPECTION DATE 11/20/70

Z1	(- - - - - INSIDE - - - - -)	(- - - - - OUTSIDE - - - - -)
	X-ACT Y-ACT TIR DIA	X-ACT Y-ACT TIR DIA
1.90	0.0057 0.0080 0.00982	2.980 -0.0005 -0.0007 0.00086 4.984
2.90	0.0022 0.0026 0.00341	3.359 0.0022 0.0016 0.00272 5.125
3.90	0.0085 0.0007 0.00852	3.479 0.0012 -0.0004 0.00126 5.128
4.90	0.0120 -0.0004 0.01201	3.590 -0.0019 0.0001 0.00190 4.986
5.90	0.0135 -0.0023 0.01369	3.706 0.0008 0.0003 0.00085 4.955
6.90	0.0147 -0.0021 0.01485	3.822 0.0027 -0.0004 0.00273 4.952
7.90	0.0157 -0.0021 0.01584	3.918 0.0007 0.0004 0.00081 4.952
8.90	0.0155 -0.0025 0.01589	3.921 0.0001 0.0003 0.00032 4.952
9.90	0.0148 -0.0043 0.01541	3.924 0.0006 0.0001 0.00061 4.952

Z2	(- - - - - INSIDE - - - - -)	(- - - - - OUTSIDE - - - - -)
	X-ACT Y-ACT TIR DIA	X-ACT Y-ACT TIR DIA
5.75	0.0150 -0.0042 0.01558	3.928 0.0015 0.0006 0.00162 4.984
4.75	0.0123 -0.0039 0.01290	3.904 0.0017 0.0007 0.00184 4.882
3.75	0.0084 -0.0017 0.00857	3.802 0.0004 0.0013 0.00136 4.696
3.25	0.0062 0.0012 0.00632	3.682 -0.0001 0.0009 0.00091 4.573
2.75	0.0064 0.0043 0.00771	3.518 -0.0009 0.0007 0.00114 4.431
2.25	0.0057 0.0053 0.00778	3.264 0.0006 0.0005 0.00078 4.271
1.75	0.0048 0.0049 0.00686	2.894 0.0013 0.0006 0.00143 4.089
1.25	0.0019 0.0038 0.00425	2.604 0.0013 0.0008 0.00153 3.889

Z3 X-ACT Y-ACT TIR

1.00 -0.0025 0.0021 0.00468
7.00 -0.0253 0.0088 0.02679

BASE THICKNESS (IN) 1.501

PROJECTILE LENGTH (IN) 16.680

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 89 PROJECTILE B4

INSPECTION DATE 11/20/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0046	-0.0035	0.00578	3.030	-0.0014	-0.0002	0.00141	4.983
2.90	0.0059	-0.0085	0.01035	3.362	0.0	-0.0	0.0	5.125
3.90	0.0072	-0.0039	0.00819	3.480	-0.0003	-0.0005	0.00058	5.126
4.90	0.0086	0.0013	0.00870	3.596	-0.0010	0.0005	0.00112	4.986
5.90	0.0110	0.0045	0.01188	3.710	-0.0051	0.0005	0.00512	4.965
6.90	0.0115	0.0065	0.01321	3.824	-0.0010	-0.0005	0.00112	4.961
7.90	0.0121	0.0083	0.01467	3.913	-0.0010	0.0002	0.00102	4.962
8.90	0.0108	0.0089	0.01399	3.914	-0.0022	-0.0003	0.00222	4.961
9.90	0.0101	0.0054	0.01380	3.922	-0.0032	-0.0004	0.00322	4.963

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0120	0.0075	0.01415	3.929	-0.0015	-0.0004	0.00155	4.982
4.75	0.0057	0.0052	0.01101	3.905	-0.0015	-0.0005	0.00158	4.886
3.75	0.0060	0.0032	0.00680	3.809	-0.0021	-0.0010	0.00233	4.699
2.25	0.0047	-0.0020	0.00511	3.694	-0.0018	-0.0007	0.00193	4.576
2.75	0.0013	-0.0074	0.00751	3.525	-0.0017	-0.0005	0.00177	4.435
2.25	-0.0050	-0.0138	0.01468	3.266	-0.0027	-0.0006	0.00277	4.272
1.75	-0.0123	-0.0150	0.02263	2.892	-0.0015	-0.0010	0.00180	4.090
1.25	-0.0099	-0.0171	0.01976	2.612	-0.0022	-0.0005	0.00226	3.888

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0067	0.0020	0.00699
7.00	-0.0063	0.0026	0.00682

BASE THICKNESS (IN) 1.509

PROJECTILE LENGTH (IN) 16.659

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 89 PROJECTILE R5

INSPECTION DATE 11/17/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
1.90	0.0104	0.0080	0.01312	3.006	0.0012	-0.0002	0.00122	4.985
2.90	0.0094	0.0021	0.00963	3.366	0.0006	-0.0002	0.00063	5.120
3.90	0.0123	0.0038	0.01287	3.483	0.0006	0.0	0.00060	5.125
4.90	0.0122	0.0041	0.01287	3.599	0.0013	-0.0	0.00130	4.983
5.90	0.0134	0.0036	0.01388	3.712	0.0008	-0.0001	0.00081	4.955
6.90	0.0132	0.0032	0.01358	3.827	0.0021	-0.0001	0.00210	4.953
7.90	0.0138	0.0042	0.01442	3.913	0.0015	-0.0004	0.00155	4.953
8.90	0.0109	0.0030	0.01131	3.914	0.0009	-0.0001	0.00091	4.954
9.90	0.0120	0.0030	0.01237	3.918	0.0008	-0.0004	0.00089	4.954

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
5.75	0.0153	0.0041	0.01584	3.929	0.0007	-0.0005	0.00086	4.985
4.75	0.0133	0.0046	0.01407	3.894	0.0019	0.0	0.00190	4.886
3.75	0.0105	0.0008	0.01053	3.740	0.0013	-0.0007	0.00148	4.700
3.25	0.0102	-0.0039	0.01088	3.619	0.0026	-0.0003	0.00262	4.580
2.75	0.0089	-0.0083	0.01217	3.476	0.0010	-0.0009	0.00135	4.439
2.25	0.0066	-0.0118	0.01352	3.287	0.0006	-0.0008	0.00100	4.278
1.75	0.0020	-0.0147	0.01484	2.954	0.0014	-0.0003	0.00143	4.099
1.25	-0.0017	-0.0085	0.00867	2.606	0.0018	-0.0002	0.00181	3.898

Z3	X-ACT	Y-ACT	TIP
1.00	0.0013	0.0030	0.00327
7.00	0.0225	0.0144	0.02671

BASE THICKNESS (IN) 1.522

PROJECTILE LENGTH (IN) 16.648

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 90 PROJECTILE 84

INSPECTION DATE 11/23/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0031	-0.0150	0.01532	3.008	-0.0013	0.0002	0.00132	4.984
2.90	0.0099	-0.0116	0.01525	3.368	-0.0006	0.0016	0.00171	5.124
3.90	0.0045	-0.0127	0.01347	3.484	-0.0006	0.0010	0.00117	5.123
4.90	0.0032	-0.0103	0.01079	3.599	-0.0005	0.0005	0.00071	4.985
5.90	0.0003	-0.0073	0.00731	3.714	-0.0006	0.0013	0.00143	4.953
6.90	-0.0015	-0.0053	0.00551	3.829	-0.0005	0.0001	0.00051	4.951
7.90	-0.0016	-0.0051	0.00535	3.915	0.0001	0.0005	0.00051	4.950
8.90	-0.0036	-0.0023	0.00427	3.917	-0.0004	0.0005	0.00064	4.950
9.90	-0.0050	-0.0013	0.00517	3.919	-0.0008	0.0003	0.00085	4.950

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0079	-0.0004	0.00791	3.927	0.0008	0.0005	0.00094	4.983
4.75	-0.0069	-0.0005	0.00692	3.888	0.0010	0.0003	0.00104	4.883
3.75	-0.0084	0.0003	0.00841	3.763	0.0002	0.0005	0.00054	4.697
3.25	-0.0104	-0.0002	0.01040	3.639	-0.0013	0.0002	0.00132	4.578
2.75	-0.0111	-0.0012	0.01116	3.465	-0.0009	0.0005	0.00103	4.436
2.25	-0.0093	-0.0004	0.00931	3.208	-0.0008	-0.0	0.00080	4.276
1.75	-0.0143	0.0035	0.01472	2.835	-0.0005	0.0001	0.00051	4.095
1.25	0.0035	0.0152	0.01560	2.566	0.0006	0.0002	0.00063	3.895

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0003	-0.0009	0.00095
7.00	0.0055	-0.0038	0.00669

BASE THICKNESS (IN) 1.494

PROJECTILE LENGTH (IN) 16.652

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 91 PROJECTILE #1

INSPECTION DATE 11/13/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	-0.0065	0.0064	0.00912	2.980	-0.0005	-0.0014	0.00149	4.983	
2.90	0.0020	0.0018	0.00269	3.370	-0.0023	-0.0009	0.00247	5.123	
3.90	0.0006	0.0042	0.00424	3.486	-0.0029	0.0009	0.00304	5.127	
4.90	-0.0055	0.0063	0.00836	3.601	-0.0018	-0.0002	0.00181	4.985	
5.90	-0.0058	0.0077	0.00964	3.714	-0.0012	0.0004	0.00126	4.958	
6.90	-0.0058	0.0072	0.00925	3.826	-0.0014	0.0003	0.00143	4.954	
7.90	-0.0069	0.0071	0.00990	3.920	-0.0006	0.0005	0.00078	4.954	
8.90	-0.0070	0.0067	0.00969	3.920	-0.0018	0.0008	0.00197	4.954	
9.90	-0.0078	0.0058	0.00972	3.921	-0.0016	0.0007	0.00175	4.954	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	-0.0067	0.0065	0.00933	3.924	-0.0005	0.0016	0.00168	4.982	
4.75	-0.0077	0.0065	0.01008	3.903	-0.0007	0.0020	0.00212	4.884	
3.75	-0.0046	0.0057	0.00732	3.800	-0.0009	0.0021	0.00228	4.697	
3.25	-0.0001	0.0058	0.00580	3.679	-0.0013	0.0018	0.00222	4.577	
2.75	0.0033	0.0064	0.00720	3.511	-0.0018	0.0015	0.00234	4.435	
2.25	0.0052	0.0054	0.00750	3.269	-0.0010	0.0022	0.00242	4.274	
1.75	0.0073	0.0037	0.00818	2.901	-0.0006	0.0021	0.00218	4.093	
1.25	0.0061	0.0108	0.01240	2.601	0.0001	0.0022	0.00220	3.891	

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0020	0.0050	0.00539
7.00	0.0038	0.0008	0.00388

BASE THICKNESS (IN) 1.503

PROJECTILE LENGTH (IN) 16.664

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 91 PROJECTILE B4

INSPECTION DATE 11/23/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0037	0.0053	0.00646	3.004	0.0010	0.0	0.00100	4.982
2.90	-0.0033	-0.0062	0.00702	3.368	-0.0009	-0.0	0.00090	5.123
3.90	-0.0047	-0.0084	0.00963	3.487	-0.0004	0.0009	0.00098	5.127
4.90	-0.0033	-0.0088	0.00940	3.594	-0.0005	0.0002	0.00054	4.985
5.90	-0.0012	-0.0104	0.01047	3.705	0.0026	0.0004	0.00263	4.957
6.90	-0.0012	-0.0112	0.01126	3.824	0.0022	0.0001	0.00220	4.956
7.90	-0.0024	-0.0119	0.01214	3.910	0.0034	0.0004	0.00342	4.955
8.90	-0.0042	-0.0117	0.01243	3.916	0.0015	0.0003	0.00153	4.956
9.90	-0.0024	-0.0114	0.01165	3.917	0.0011	0.0006	0.00125	4.955

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0046	-0.0112	0.01211	3.919	0.0025	0.0005	0.00255	4.982
4.75	-0.0037	-0.0095	0.01020	3.901	0.0018	0.0009	0.00201	4.887
3.75	-0.0062	-0.0043	0.00755	3.796	0.0029	0.0013	0.00318	4.702
3.25	-0.0073	-0.0007	0.00733	3.676	0.0020	0.0014	0.00244	4.580
2.75	-0.0086	0.0040	0.00948	3.508	0.0019	0.0016	0.00248	4.441
2.25	-0.0067	0.0074	0.00998	3.256	0.0024	0.0019	0.00306	4.279
1.75	-0.0035	0.0111	0.01164	2.886	0.0025	0.0024	0.00361	4.098
1.25	0.0043	0.0112	0.01200	2.598	0.0031	0.0024	0.00392	3.897

Z3 X-ACT Y-ACT TIR

1.00	0.0005	0.0006	0.00078
7.00	-0.0006	0.0016	0.00171

BASE THICKNESS (IN) 1.509

PROJECTILE LENGTH (IN) 14.665

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 91 PROJECTILE R5

INSPECTION DATE 11/16/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0271	-0.0170	0.02166	3.039	0.0022	-0.0003	0.00222	4.982
2.90	0.0152	-0.0108	0.02125	3.367	0.0034	-0.0010	0.00354	5.127
3.90	0.0178	-0.0153	0.02247	3.480	0.0036	0.0001	0.00360	5.126
4.90	0.0034	-0.0166	0.01694	3.618	0.0018	-0.0005	0.00187	4.995
5.90	-0.0053	-0.0052	0.01208	3.792	0.0010	0.0006	0.00190	4.958
6.90	-0.0012	-0.0119	0.01196	3.859	0.0028	0.0004	0.00283	4.956
7.90	0.0054	-0.0122	0.01334	3.930	0.0014	-0.0012	0.00184	4.955
8.90	0.0055	-0.0126	0.01375	3.934	0.0013	-0.0005	0.00139	4.955
9.90	0.0050	-0.0118	0.01282	3.940	0.0017	-0.0006	0.00180	4.956

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0139	-0.0168	0.02180	3.932	0.0015	-0.0003	0.00153	4.982
4.75	0.0121	-0.0142	0.01939	3.906	0.0021	-0.0004	0.00214	4.880
3.75	0.0129	-0.0078	0.01507	3.791	0.0013	0.0002	0.00132	4.693
3.25	0.0102	-0.0022	0.01055	3.656	0.0006	-0.0001	0.00061	4.570
2.75	0.0105	0.0024	0.01077	3.475	0.0	0.0001	0.00010	4.420
2.25	0.0105	0.0060	0.01209	3.177	0.0015	0.0003	0.00153	4.264
1.75	0.0104	0.0059	0.01191	2.804	0.0029	0.0009	0.00304	4.083
1.25	0.0203	0.0059	0.02114	2.579	0.0026	-0.0011	0.00282	3.891

Z3	X-ACT	Y-ACT	TIR
1.00	0.0002	-0.0010	0.00104
7.00	-0.0029	0.0041	0.00502

BASE THICKNESS (IN) 1.502

PROJECTILE LENGTH (IN) 16.609

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 92 PROJECTILE B1

INSPECTION DATE 11/12/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0109	-0.0006	0.01092	2.883	0.0012	-0.0002	0.00122	4.984
2.90	0.0200	-0.0035	0.02030	3.356	-0.0017	-0.0001	0.00170	5.127
3.90	0.0186	-0.0	0.01860	3.470	0.0036	0.0004	0.00362	5.124
4.90	0.0197	0.0019	0.01979	3.583	-0.0013	0.0001	0.00130	4.984
5.90	0.0220	0.0026	0.02215	3.699	-0.0004	0.0002	0.00045	4.957
6.90	0.0218	0.0041	0.02218	3.810	0.0006	-0.0003	0.00067	4.954
7.90	0.0232	0.0044	0.02361	3.912	0.0007	0.0002	0.00073	4.955
8.90	0.0190	0.0050	0.01965	3.918	-0.0018	-0.0007	0.00193	4.954
9.90	0.0167	0.0042	0.01722	3.926	0.0003	-0.0	0.00030	4.953

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0146	0.0057	0.01567	3.936	0.0007	0.0001	0.00071	4.986
4.75	0.0082	0.0063	0.01034	3.909	0.0	0.0001	0.00010	4.888
3.75	0.0055	0.0044	0.00704	3.804	0.0002	-0.0002	0.00028	4.700
3.25	0.0069	0.0029	0.00748	3.693	-0.0010	-0.0001	0.00100	4.576
2.75	0.0091	0.0029	0.00955	3.537	-0.0003	0.0002	0.00036	4.434
2.25	0.0114	0.0005	0.01141	3.302	-0.0005	-0.0	0.00050	4.275
1.75	0.0141	-0.0026	0.01434	2.941	0.0006	0.0001	0.00061	4.089
1.25	0.0168	-0.0033	0.01712	2.627	0.0003	0.0009	0.00095	3.886

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0009	-0.0006	0.00109
7.00	-0.0002	-0.0083	0.00830

BASE THICKNESS (IN) 1.501

PROJECTILE LENGTH (IN) 16.647

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 46-0 1 CT 92 PROJECTILE R3

INSPECTION DATE 11/25/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0037	0.0019	0.00416	2.986	0.0011	-0.0003	0.00114	4.987
2.90	0.0149	0.0006	0.01491	2.364	-0.0023	-0.0003	0.00232	5.126
3.90	0.0110	0.0046	0.01192	3.479	-0.0012	0.0011	0.00163	5.127
4.90	0.0080	0.0083	0.01152	3.592	0.0006	0.0009	0.00108	4.985
5.90	0.0083	0.0109	0.01370	3.707	0.0003	0.0002	0.00036	4.961
6.90	0.0082	0.0108	0.01356	3.820	0.0030	0.0008	0.00310	4.960
7.90	0.0072	0.0111	0.01322	2.913	0.0010	0.0009	0.00135	4.961
8.90	0.0063	0.0118	0.01338	3.917	0.0011	0.0009	0.00142	4.961
9.90	0.0038	0.0125	0.01402	3.922	0.0009	0.0015	0.00175	4.952

22	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0035	0.0157	0.01609	3.931	0.0020	0.0015	0.00250	4.984
4.75	0.0051	0.0143	0.01518	3.903	0.0029	0.0016	0.00331	4.882
3.75	0.0052	0.0081	0.00962	3.735	0.0036	0.0010	0.00374	4.696
2.25	0.0047	0.0013	0.00488	3.608	0.0025	0.0015	0.00292	4.573
2.75	0.0044	-0.0057	0.00720	3.468	0.0002	0.0009	0.00092	4.432
2.25	0.0027	-0.0074	0.00788	2.286	0.0034	0.0024	0.00416	4.268
1.75	0.0005	-0.0105	0.01051	2.966	0.0012	0.0030	0.00323	4.087
1.25	-0.0002	-0.0110	0.01100	2.616	0.0019	0.0019	0.00269	3.885

23	X-ACT	Y-ACT	TIR
1.00	-0.0029	-0.0038	0.00478
7.00	-0.0081	-0.0049	0.00947

BASE THICKNESS (IN) 1.529

PROJECTILE LENGTH (IN) 16.598

71 IS DISTANCE FROM BASE (IN)

22 IS DISTANCE FROM NOSE (IN)

23 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/28 MK 66-0 LOT 92 PROJECTILE R4

INSPECTION DATE 11/19/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0099	0.0020	0.01010	2.999	0.0008	-0.0008	0.00113	4.984
2.90	-0.0027	-0.0031	0.00411	3.368	0.0012	-0.0012	0.00170	5.127
3.90	-0.0059	-0.0001	0.00590	3.483	0.0010	-0.0038	0.00393	5.127
4.90	-0.0060	0.0034	0.00690	3.596	-0.0001	0.0004	0.00041	4.986
5.90	-0.0093	0.0059	0.01101	3.709	0.0002	0.0001	0.00022	4.961
6.90	-0.0080	0.0087	0.01182	3.825	0.0010	-0.0005	0.00112	4.961
7.90	-0.0058	0.0098	0.01135	3.916	-0.0005	-0.0004	0.00064	4.959
8.90	-0.0103	0.0105	0.01471	3.919	-0.0010	-0.0005	0.00112	4.960
9.90	-0.0096	0.0121	0.01545	3.923	-0.0016	-0.0003	0.00163	4.961

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0070	0.0133	0.01503	3.924	-0.0020	-0.0004	0.00204	4.984
4.75	-0.0087	0.0103	0.01415	3.903	-0.0020	-0.0009	0.00219	4.889
3.75	-0.0146	0.0064	0.01594	3.751	-0.0016	-0.0007	0.00175	4.705
3.25	-0.0177	0.0060	0.01869	3.625	-0.0013	-0.0004	0.00136	4.584
2.75	-0.0184	0.0062	0.01945	3.483	-0.0035	-0.0011	0.00367	4.440
2.25	-0.0157	0.0071	0.01723	3.296	-0.0032	-0.0014	0.00349	4.280
1.75	-0.0092	0.0082	0.01232	2.973	-0.0017	-0.0008	0.00188	4.100
1.25	-0.0042	0.0079	0.00895	2.628	-0.0027	-0.0009	0.00285	3.899

Z3 X-ACT Y-ACT TIR

1.00 0.0070 0.0045 0.00906
7.00 0.0133 0.0034 0.01173

BASE THICKNESS (IN) 1.509

PROJECTILE LENGTH (IN) 16.501

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 1 CT 92 PROJECTILE R5

INSPECTION DATE 11/24/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0086	0.0058	0.01037	2.951	0.0018	0.0008	0.00197	4.984
2.90	-0.0076	0.0105	0.01296	3.367	0.0021	0.0002	0.00311	5.122
3.90	-0.0053	0.0073	0.00902	3.492	0.0019	0.0017	0.00255	5.124
4.90	-0.0029	0.0036	0.00462	3.593	0.0002	0.0003	0.00036	4.994
5.90	-0.0030	0.0022	0.00372	3.705	0.0006	0.0012	0.00134	4.960
6.90	-0.0019	0.0010	0.00205	3.820	0.0038	0.0005	0.00383	4.955
7.90	-0.0039	-0.0005	0.00393	3.914	0.0011	-0.0007	0.00130	4.957
8.90	-0.0042	0.0002	0.00420	3.919	0.0016	0.0002	0.00161	4.958
9.90	-0.0047	0.0003	0.00471	3.922	-0.0003	-0.0004	0.00050	4.957

72	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0052	-0.0001	0.00520	3.928	0.0016	-0.0007	0.00175	4.985
4.75	-0.0046	-0.0003	0.00461	3.905	0.0007	0.0003	0.00076	4.886
3.75	-0.0052	-0.0002	0.00520	3.794	0.0007	0.0007	0.00099	4.698
3.25	-0.0039	-0.0024	0.00459	3.674	0.0006	0.0004	0.00072	4.576
2.75	-0.0048	-0.0023	0.00592	3.507	0.0011	0.0004	0.00117	4.431
2.25	-0.0045	-0.0022	0.00501	3.256	0.0009	-0.0	0.00090	4.272
1.75	-0.0026	0.0016	0.00305	2.883	0.0005	0.0003	0.00058	4.090
1.25	-0.0052	-0.0029	0.00595	2.595	0.0019	-0.0001	0.00190	3.887

73	X-ACT	Y-ACT	TIR
1.00	-0.0010	-0.0040	0.00412
7.00	-0.0145	-0.0172	0.02250

BASE THICKNESS (IN) 1.542

PROJECTILE LENGTH (IN) 16.690

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GJA PROJECTILE INSPECTION DATA

5/38 MK 56-0 LOT 52 PROJECTILE R2

INSPECTION DATE 11/30/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0010	0.0072	0.00727	2.987	0.0016	0.0008	0.00179	4.987
2.90	0.0107	0.0009	0.01074	3.365	0.0034	0.0038	0.00510	5.126
3.50	0.0086	0.0064	0.01072	3.479	0.0034	0.0042	0.00540	5.125
4.90	0.0081	0.0085	0.01174	3.594	-0.0005	0.0010	0.00112	4.988
5.90	0.0087	0.0090	0.01252	3.707	0.0005	0.0007	0.00086	4.962
6.90	0.0101	0.0088	0.01340	3.822	0.0034	0.0012	0.00361	4.960
7.90	0.0104	0.0087	0.01356	3.917	0.0010	0.0002	0.00102	4.958
8.90	0.0063	0.0087	0.01074	3.918	0.0013	0.0019	0.00230	4.960
9.90	0.0064	0.0074	0.00978	3.922	0.0010	0.0008	0.00128	4.958

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0072	0.0068	0.00990	3.927	0.0013	0.0014	0.00191	4.984
4.75	0.0085	0.0053	0.01002	3.900	0.0015	0.0016	0.00219	4.881
3.75	0.0052	0.0027	0.00586	3.729	0.0011	0.0022	0.00246	4.696
3.25	0.0017	0.0003	0.00173	3.601	-0.0003	0.0021	0.00212	4.574
2.75	-0.0015	-0.0010	0.00180	3.455	-0.0006	0.0023	0.00238	4.432
2.25	-0.0017	-0.0016	0.00233	3.263	0.0006	0.0021	0.00218	4.269
1.75	-0.0017	-0.0014	0.00220	2.926	0.0019	0.0025	0.00314	4.086
1.25	-0.0017	-0.0018	0.00248	2.600	0.0007	0.0030	0.00308	3.885

Z3	X-ACT	Y-ACT	TIR
1.00	0.0021	-0.0011	0.00237
7.00	0.0023	-0.0229	0.02302

BASE THICKNESS (IN) 1.536

PROJECTILE LENGTH (IN) 16.675

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 52 PROJECTILE R3

INSPECTION DATE 11/25/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	-0.0182	0.0066	0.01926	2.873	0.0025	0.0009	0.00266	4.985	
2.90	-0.0097	0.0181	0.02054	2.360	0.0014	0.0005	0.00149	5.123	
3.90	-0.0107	0.0131	0.01664	2.475	-0.0006	0.0019	0.00199	5.127	
4.90	-0.0120	0.0106	0.01601	2.591	0.0012	0.0020	0.00233	4.983	
5.90	-0.0111	0.0084	0.01352	2.701	0.0013	0.0027	0.00300	4.963	
6.90	-0.0126	0.0067	0.01409	3.818	0.0023	0.0026	0.00347	4.961	
7.90	-0.0106	0.0060	0.01218	2.921	0.0019	0.0034	0.00389	4.960	
8.90	-0.0117	0.0049	0.01268	2.623	0.0013	0.0030	0.00327	4.961	
9.90	-0.0125	0.0042	0.01319	2.627	0.0023	0.0040	0.00461	4.964	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	-0.0112	0.0032	0.01165	2.623	0.0012	0.0019	0.00225	4.983	
4.75	-0.0118	0.0042	0.01257	2.910	0.0022	0.0024	0.00326	4.888	
3.75	-0.0097	0.0039	0.00952	2.746	0.0010	0.0024	0.00260	4.699	
2.75	-0.0052	0.0015	0.00551	2.612	0.0009	0.0027	0.00285	4.579	
2.75	-0.0010	-0.0002	0.00191	2.471	-0.0001	0.0020	0.00200	4.437	
2.25	0.0017	-0.0006	0.00311	2.282	0.0007	0.0024	0.00250	4.273	
1.75	0.0072	-0.0049	0.00879	2.989	-0.0008	0.0029	0.00301	4.092	
1.25	0.0108	-0.0032	0.01126	2.626	0.0015	0.0021	0.00258	3.891	

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0007	0.0018	0.00181
2.00	0.0081	0.0101	0.01295

BASE THICKNESS (IN) 1.560

PROJECTILE LENGTH (IN) 16.408

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 1 CT 93 PROJECTILE R4

INSPECTION DATE 11/19/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0050	-0.0044	0.01083	2.965	0.0011	0.0006	0.00125	4.984
2.90	0.0054	-0.0067	0.00861	3.364	0.0017	-0.0007	0.00184	5.124
3.90	0.0059	-0.0055	0.01133	3.477	0.0006	-0.0003	0.00067	5.123
4.90	0.0111	-0.0046	0.01202	3.591	-0.0005	0.0003	0.00095	4.985
5.90	0.0113	-0.0042	0.01206	3.705	-0.0005	0.0002	0.00054	4.955
6.90	0.0132	-0.0046	0.01398	3.821	0.0012	-0.0	0.00120	4.954
7.90	0.0135	-0.0057	0.01465	3.918	0.0009	-0.0004	0.00098	4.954
8.90	0.0131	-0.0060	0.01441	3.920	0.0004	0.0004	0.00057	4.953
9.90	0.0130	-0.0063	0.01445	3.925	0.0002	0.0002	0.00028	4.953

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0118	-0.0072	0.01382	3.934	0.0012	0.0	0.00120	4.984
4.75	0.0085	-0.0091	0.01245	3.913	0.0012	0.0003	0.00124	4.888
3.75	0.0045	-0.0061	0.00758	3.810	0.0009	-0.0	0.00080	4.702
2.75	0.0024	-0.0037	0.00441	3.695	0.0011	0.0004	0.00117	4.578
2.75	0.0012	-0.0023	0.00259	3.534	0.0	0.0002	0.00020	4.437
2.25	0.0020	-0.0011	0.00228	3.292	-0.0007	-0.0007	0.00099	4.277
1.75	0.0029	0.0004	0.00292	2.925	0.0014	0.0001	0.00140	4.091
1.25	0.0053	0.0013	0.00546	2.625	0.0015	0.0003	0.00153	3.890

Z3 X-ACT Y-ACT TIR

1.00 -0.0023 -0.0020 0.00305
7.00 -0.0046 -0.0233 0.02375

BASE THICKNESS (IN) 1.550

PROJECTILE LENGTH (IN) 16.662

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 52 PROJECTILE B5

INSPECTION DATE 11/23/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0021	0.0103	0.01051	3.067	0.0003	0.0018	0.00182	4.976
2.90	0.0050	0.0053	0.00729	3.367	0.0008	0.0009	0.00120	5.126
3.90	0.0059	0.0058	0.00827	3.489	-0.0001	0.0014	0.00140	5.127
4.90	0.0058	0.0078	0.00972	3.603	-0.0002	0.0005	0.00054	4.986
5.90	0.0094	0.0077	0.01215	3.715	-0.0016	0.0014	0.00213	4.957
6.90	0.0110	0.0059	0.01480	3.829	0.0003	0.0016	0.00163	4.957
7.90	0.0103	0.0102	0.01450	3.912	-0.0008	0.0019	0.00206	4.956
8.90	0.0121	0.0117	0.01683	3.912	-0.0022	0.0017	0.00278	4.955
9.90	0.0127	0.0127	0.01796	3.916	-0.0012	0.0015	0.00192	4.957

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0160	0.0146	0.02156	3.925	-0.0007	0.0006	0.00092	4.984
4.75	0.0163	0.0140	0.02149	3.903	-0.0001	0.0018	0.00180	4.892
3.75	0.0126	0.0078	0.01482	3.741	-0.0007	0.0024	0.00250	4.705
2.25	0.0104	0.0028	0.01077	3.614	-0.0025	0.0018	0.00308	4.582
2.75	0.0102	-0.0038	0.01088	3.472	-0.0005	0.0016	0.00168	4.440
2.25	0.0070	-0.0058	0.01204	3.287	-0.0016	0.0017	0.00233	4.280
1.75	0.0035	-0.0163	0.01667	2.959	-0.0001	0.0017	0.00170	4.098
1.25	-0.0048	-0.0132	0.01405	2.623	-0.0006	0.0021	0.00218	3.896

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0052	0.0008	0.00526
7.00	-0.0035	-0.0001	0.00350

BASE THICKNESS (IN) 1.473

PROJECTILE LENGTH (IN) 16.587

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT S4 PROJECTILE R2

INSPECTION DATE 11/12/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0175	0.0122	0.02198	2.986	0.0019	-0.0002	0.00191	4.983
2.90	0.0034	0.0078	0.00859	3.273	-0.0020	0.0034	0.00394	5.125
3.90	0.0046	0.0072	0.00862	3.486	-0.0009	0.0040	0.00410	5.126
4.90	0.0034	0.0053	0.00630	3.598	-0.0043	-0.0005	0.00433	4.986
5.90	0.0005	0.0030	0.00304	3.713	-0.0019	-0.0010	0.00215	4.962
6.90	0.0028	0.0038	0.00472	3.828	-0.0022	-0.0001	0.00220	4.963
7.90	0.0001	0.0032	0.00320	3.921	-0.0010	-0.0010	0.00141	4.962
8.90	-0.0030	0.0029	0.00492	3.925	-0.0013	0.0002	0.00132	4.962
9.90	-0.0064	0.0038	0.00744	3.929	-0.0004	0.0006	0.00072	4.962

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0076	0.0032	0.00854	3.938	-0.0005	0.0008	0.00094	4.984
4.75	-0.0064	0.0024	0.00725	3.915	-0.0020	0.0001	0.00200	4.886
3.75	-0.0068	0.0025	0.00724	3.813	-0.0025	0.0004	0.00253	4.698
3.25	-0.0068	-0.0	0.00680	3.696	-0.0021	0.0015	0.00258	4.575
2.75	-0.0062	-0.0025	0.00734	3.534	-0.0028	0.0008	0.00291	4.435
2.25	-0.0100	-0.0049	0.01114	3.293	-0.0025	0.0008	0.00262	4.270
1.75	-0.0101	-0.0026	0.01042	2.926	-0.0020	0.0002	0.00201	4.089
1.25	-0.0103	0.0026	0.01091	2.631	-0.0011	0.0005	0.00121	3.887

Z2 X-ACT Y-ACT TIR

1.00	-0.0	-0.0016	0.00160
7.00	-0.0022	-0.0026	0.00462

BASE THICKNESS (IN) 1.529

PROJECTILE LENGTH (IN) 16.656

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z2 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 54 PROJECTILE R3

INSPECTION DATE 11/24/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0048	-0.0036	0.00600	2.952	0.0001	-0.0006	0.00061	4.984
2.90	0.0087	-0.0009	0.00875	3.250	0.0022	0.0037	0.00430	5.124
3.90	0.0042	-0.0052	0.00675	3.475	0.0015	0.0054	0.00560	5.121
4.90	0.0021	-0.0087	0.00895	3.588	-0.0011	0.0005	0.00121	4.986
5.90	0.0001	-0.0012	0.00130	3.704	0.0020	0.0019	0.00276	4.959
6.90	0.0011	-0.0107	0.01076	3.917	0.0008	0.0014	0.00161	4.955
7.90	0.0009	-0.0113	0.01132	3.919	0.0016	0.0017	0.00233	4.956
8.90	-0.0007	-0.0126	0.01262	3.921	0.0009	0.0011	0.00142	4.955
9.90	-0.0036	-0.0140	0.01446	3.926	0.0004	0.0009	0.00098	4.955

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0022	-0.0124	0.01281	3.935	0.0004	0.0019	0.00194	4.982
4.75	-0.0040	-0.0130	0.01389	3.910	0.0006	0.0018	0.00190	4.891
3.75	-0.0015	-0.0122	0.01220	3.802	-0.0008	0.0005	0.00094	4.702
2.75	0.0001	-0.0113	0.01130	3.684	-0.0013	0.0008	0.00153	4.579
2.75	0.0028	-0.0089	0.00933	3.521	-0.0015	0.0005	0.00158	4.438
2.25	0.0086	-0.0086	0.01216	3.279	-0.0004	0.0007	0.00081	4.277
1.75	0.0140	-0.0088	0.01730	2.914	-0.0009	0.0010	0.00135	4.092
1.25	0.0100	-0.0111	0.01494	2.625	0.0001	0.0016	0.00160	3.890

Z2	X-ACT	Y-ACT	TIR
1.00	-0.0002	0.0011	0.00112
2.00	0.0080	0.0000	0.00895

BASE THICKNESS (IN) 1.541

PROJECTILE LENGTH (IN) 16.657

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/39 MK 46-0 LOT 94 PROJECTILE 84

INSPECTION DATE 11/12/70

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
71	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0060	-0.0072	0.00537	2.990	-0.0019	-0.0012	0.00225	4.983
2.90	0.0122	-0.0113	0.01663	3.367	-0.0008	-0.0007	0.00106	5.123
3.90	0.0074	-0.0028	0.00832	3.483	-0.0001	0.0001	0.00014	5.125
4.90	0.0056	-0.0007	0.00560	3.596	-0.0008	-0.0008	0.00113	4.983
5.90	0.0045	0.0017	0.00481	3.713	-0.0012	-0.0009	0.00150	4.954
6.90	0.0024	0.0033	0.00408	3.826	0.0005	-0.0005	0.00071	4.955
7.90	0.0027	0.0048	0.00551	3.921	0.0013	0.0	0.00130	4.955
8.90	0.0004	0.0048	0.00482	3.920	-0.0009	-0.0004	0.00098	4.945
9.90	-0.0013	0.0048	0.00497	3.924	0.0012	0.0006	0.00134	4.952

	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
72	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0015	0.0048	0.00503	3.931	0.0021	0.0002	0.00211	4.985
4.75	-0.0008	0.0055	0.00556	3.905	0.0009	-0.0002	0.00092	4.886
3.75	-0.0042	0.0032	0.00528	3.732	0.0004	0.0004	0.00057	4.699
3.25	-0.0052	0.0002	0.00520	3.604	0.0012	0.0002	0.00122	4.576
2.75	-0.0070	-0.0020	0.00728	3.459	0.0012	0.0006	0.00134	4.434
2.25	-0.0073	-0.0028	0.00782	3.268	0.0014	-0.0002	0.00141	4.273
1.75	-0.0072	0.0	0.00920	2.929	0.0026	0.0003	0.00260	4.090
1.25	-0.0065	0.0030	0.00716	2.607	0.0031	0.0013	0.00336	3.889

73	X-ACT	Y-ACT	TIR
1.00	0.0030	0.0012	0.00323
7.00	0.0218	-0.0135	0.02564

BASE THICKNESS (IN) 1.478

PROJECTILE LENGTH (IN) 16.659

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5718 MK 66-0 LOT 54 PROJECTILE R5

INSPECTION DATE 11/20/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.90	0.0118	-0.0058	0.01534	3.041	-0.0023	-0.0008	0.00244	4.996
2.90	0.0149	-0.0073	0.01659	3.375	-0.0005	0.0025	0.00255	5.125
3.90	0.0041	-0.0102	0.01095	3.485	-0.0011	0.0006	0.00125	5.124
4.90	0.0003	-0.0105	0.01050	3.602	0.0002	0.0013	0.00132	4.989
5.90	-0.0024	-0.0081	0.00845	3.716	-0.0015	0.0008	0.00170	4.954
6.90	-0.0058	-0.0050	0.01071	3.832	0.0001	0.0009	0.00091	4.954
7.90	-0.0082	-0.0102	0.01309	3.914	-0.0012	0.0017	0.00208	4.954
8.90	-0.0075	-0.0083	0.01119	3.916	-0.0015	0.0013	0.00198	4.952
9.90	-0.0101	-0.0057	0.01400	3.520	-0.0018	0.0010	0.00206	4.952

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	-0.0100	-0.0058	0.01400	3.524	-0.0010	0.0015	0.00180	4.986
4.75	-0.0080	-0.0052	0.01219	3.887	-0.0014	0.0019	0.00236	4.884
3.75	-0.0061	-0.0072	0.00944	3.690	-0.0019	0.0015	0.00242	4.698
2.75	-0.0068	-0.0063	0.00927	3.555	-0.0028	0.0016	0.00322	4.575
2.75	-0.0074	-0.0039	0.00832	3.409	-0.0028	0.0017	0.00328	4.433
2.25	-0.0052	-0.0007	0.00535	3.219	-0.0019	0.0011	0.00220	4.269
1.75	-0.0026	0.0038	0.00460	2.884	-0.0021	0.0022	0.00304	4.088
1.25	0.0146	0.0042	0.01519	2.568	-0.0021	0.0016	0.00264	3.886

Z3	X-ACT	Y-ACT	TIP
1.00	-0.0002	-0.0008	0.00082
7.00	0.0030	0.0026	0.00397

BASE THICKNESS (IN) 1.456

PROJECTILE LENGTH (IN) 16.661

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GHA PROJECTILE INSPECTION DATA

5/28 MK 44-0 LOT 05 PROJECTILE R1

INSPECTION DATE 11/10/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
1.00	0.0141	0.0125	0.01884	2.987	0.0002	-0.0005	0.00054	4.985
2.00	0.0100	0.0052	0.01212	2.967	-0.0006	-0.0021	0.00316	5.125
3.00	0.0052	0.0010	0.00540	2.980	-0.0001	-0.0018	0.00180	5.125
4.00	0.0051	-0.0002	0.00511	2.955	0.0001	0.0001	0.00014	4.985
5.00	0.0021	-0.0026	0.00475	2.909	-0.0018	-0.0006	0.00190	4.962
6.00	0.0030	-0.0048	0.00566	2.922	0.0004	0.0003	0.00050	4.964
7.00	0.0021	-0.0042	0.00470	2.920	0.0010	-0.0002	0.00102	4.963
8.00	0.0017	-0.0048	0.00509	2.919	-0.0008	0.0002	0.00082	4.962
9.00	0.0010	-0.0051	0.00566	2.921	-0.0001	-0.0004	0.00041	4.962

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
5.75	0.0032	-0.0055	0.00502	2.924	0.0016	0.0001	0.00160	4.982
4.75	0.0012	-0.0060	0.00612	2.905	0.0006	-0.0001	0.00061	4.894
3.75	-0.0025	-0.0024	0.00422	2.912	-0.0012	-0.0002	0.00122	4.704
2.75	-0.0041	-0.0012	0.00624	2.958	-0.0003	-0.0001	0.00032	4.578
1.75	-0.0080	0.0010	0.00806	2.921	-0.0002	0.0	0.00020	4.436
0.75	-0.0052	0.0028	0.00866	2.921	0.0009	0.0008	0.00120	4.275
1.75	-0.0066	0.0062	0.00906	2.910	0.0014	0.0008	0.00161	4.088
1.75	-0.0052	0.0112	0.01261	2.616	0.0001	0.0007	0.00071	3.986

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0024	-0.0012	0.00272
7.00	0.0024	-0.0059	0.02615

BASE THICKNESS (IN) 1.400

PROJECTILE LENGTH (IN) 16.694

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/28 MK 46-0 LOT 95 PROJECTILE B3

INSPECTION DATE 11/17/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
71	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA	
1.90	0.0164	0.0096	0.01500	2.946	-0.0018	0.0010	0.00206	4.985	
2.90	0.0141	0.0150	0.02059	2.764	0.0014	-0.0020	0.00244	5.123	
3.90	0.0129	0.0129	0.01824	2.481	0.0025	-0.0013	0.00282	5.126	
4.90	0.0096	0.0092	0.01330	2.555	-0.0004	0.0013	0.00136	4.983	
5.90	0.0097	0.0071	0.01202	2.710	-0.0001	0.0020	0.00200	4.961	
6.90	0.0114	0.0094	0.01478	2.825	0.0013	0.0024	0.00273	4.959	
7.90	0.0061	0.0078	0.00990	2.921	0.0007	0.0020	0.00212	4.961	
8.90	0.0038	0.0046	0.00997	2.919	0.0003	0.0030	0.00301	4.959	
9.90	0.0037	0.0040	0.00614	2.922	-0.0006	0.0032	0.00326	4.959	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
72	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA	
5.75	0.0060	0.0064	0.00877	2.928	-0.0001	0.0033	0.00330	4.985	
4.75	0.0049	0.0062	0.00790	2.907	0.0009	0.0038	0.00391	4.884	
3.75	0.0048	0.0055	0.00730	2.747	0.0003	0.0048	0.00481	4.698	
3.25	0.0036	0.0040	0.00538	2.619	-0.0002	0.0046	0.00460	4.576	
2.75	0.0026	0.0017	0.00311	2.474	-0.0	0.0041	0.00410	4.435	
2.25	0.0006	0.0018	0.00190	2.285	-0.0013	0.0039	0.00411	4.271	
1.75	-0.0005	0.0027	0.00373	2.963	0.0012	0.0043	0.00446	4.090	
1.25	-0.0010	0.0039	0.00403	2.619	-0.0	0.0037	0.00370	3.889	

73	X-ACT	Y-ACT	TIP
1.00	0.0016	0.0003	0.00163
7.00	-0.0008	-0.0010	0.00128

BASE THICKNESS (IN) 1.532

PROJECTILE LENGTH (IN) 16.657

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 56-0 LCT 95 PROJECTILE 95

INSPECTION DATE 11/06/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.00	-0.0012	0.0066	0.00687	2.962	-0.0022	-0.0011	0.00246	4.983	
2.50	-0.0029	-0.0006	0.00385	2.959	0.0029	-0.0006	0.00296	5.128	
3.50	-0.0017	0.0026	0.00311	2.472	0.0017	-0.0010	0.00197	5.123	
4.00	-0.0013	0.0044	0.00455	3.589	-0.0017	-0.0004	0.00175	4.983	
5.00	-0.0017	0.0052	0.00547	2.704	-0.0015	-0.0004	0.00155	4.955	
6.00	0.0017	0.0055	0.00576	2.819	-0.0015	-0.0019	0.00242	4.956	
7.00	0.0024	0.0062	0.00707	2.916	0.0001	-0.0003	0.00032	4.955	
8.00	0.0002	0.0071	0.00710	2.919	-0.0020	-0.0001	0.00200	4.955	
9.00	0.0013	0.0072	0.00742	3.921	-0.0010	-0.0006	0.00117	4.954	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0024	0.0084	0.00874	2.924	-0.0004	0.0007	0.00081	4.983	
4.75	0.0018	0.0059	0.01006	2.901	-0.0007	0.0004	0.00081	4.890	
3.75	0.0020	0.0053	0.00551	2.789	-0.0019	0.0003	0.00192	4.703	
2.25	0.0024	0.0060	0.00646	2.670	-0.0009	0.0004	0.00098	4.580	
2.75	0.0020	0.0024	0.00384	2.507	-0.0016	0.0007	0.00175	4.437	
2.25	0.0067	-0.0002	0.00671	2.265	-0.0013	0.0001	0.00130	4.277	
1.75	0.0090	-0.0018	0.00820	2.894	0.0017	0.0011	0.00202	4.098	
1.25	-0.0	-0.0120	0.01200	2.590	-0.0001	0.0009	0.00091	3.993	

Z2	X-ACT	Y-ACT	TIR
1.00	-0.0010	-0.0008	0.00128
7.00	0.0009	0.0059	0.00585

BASE THICKNESS (IN) 1.510

PROJECTILE LENGTH (IN) 16.657

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z2 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 56 PROJECTILE R 4

INSPECTION DATE 11/24/70

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA	
1.90	-0.0055	0.0164	0.01730	3.000	-0.0008	-0.0014	0.00161	4.994	
2.90	-0.0070	0.0152	0.01730	3.258	0.0044	-0.0006	0.00444	5.126	
3.90	-0.0021	0.0165	0.01652	3.474	0.0036	-0.0011	0.00376	5.128	
4.90	0.0029	0.0144	0.01460	3.591	0.0002	0.0003	0.00036	4.994	
5.90	0.0041	0.0123	0.01297	3.704	0.0011	0.0005	0.00121	4.962	
6.90	0.0080	0.0117	0.01417	3.818	0.0	0.0004	0.00040	4.960	
7.90	0.0094	0.0109	0.01381	3.915	0.0010	0.0005	0.00112	4.961	
8.90	0.0077	0.0098	0.01278	3.914	0.0008	0.0007	0.00106	4.959	
9.90	0.0106	0.0085	0.01255	3.913	0.0001	-0.0001	0.00014	4.960	

(- - - - - INSIDE - - - - -)					(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA	
5.75	0.0122	0.0072	0.01425	3.022	0.0011	-0.0005	0.00121	4.985	
6.75	0.0142	0.0078	0.01620	3.897	0.0015	-0.0005	0.00158	4.988	
7.75	0.0082	0.0032	0.00980	3.705	-0.0010	-0.0002	0.00102	4.701	
8.25	0.0042	0.0024	0.00484	3.565	-0.0009	0.0003	0.00085	4.580	
9.75	-0.0004	0.0013	0.00163	3.410	-0.0025	0.0001	0.00250	4.440	
10.25	-0.0012	0.0011	0.00163	3.238	-0.0020	-0.0006	0.00209	4.277	
11.75	-0.0021	-0.0014	0.00340	3.938	-0.0017	-0.0009	0.00192	4.097	
12.75	0.0004	0.0100	0.01001	2.574	-0.0004	-0.0005	0.00064	2.995	

Z3	X-ACT	Y-ACT	TIP
1.00	-0.0034	0.0010	0.00354
7.00	0.0021	-0.0177	0.01797

BASE THICKNESS (IN) 1.518

PROJECTILE LENGTH (IN) 16.508

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 76-0 LOT 64 PROJECTILE R2

INSPECTION DATE 12/12/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.00	-0.0055	0.0020	0.00571	2.950	0.0005	-0.0002	0.00054	4.986
2.00	-0.0005	-0.0043	0.00433	2.965	0.0001	-0.0017	0.00170	5.125
3.00	-0.0023	-0.0004	0.00333	2.977	-0.0054	-0.0027	0.00604	5.128
4.00	-0.0043	0.0005	0.00433	2.991	-0.0038	0.0002	0.00381	4.987
5.00	-0.0042	0.0018	0.00457	2.905	-0.0032	0.0008	0.00330	4.961
6.00	-0.0040	0.0030	0.00553	2.915	-0.0024	0.0	0.00240	4.955
7.00	-0.0030	0.0045	0.00541	2.918	-0.0008	-0.0004	0.00098	4.955
8.00	-0.0051	0.0032	0.00602	2.920	-0.0030	-0.0001	0.00300	4.956
9.00	-0.0057	0.0037	0.00680	2.925	-0.0043	-0.0005	0.00433	4.956

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	-0.0050	0.0054	0.00736	2.921	-0.0016	0.0009	0.00172	4.984
6.75	-0.0057	0.0045	0.00726	2.906	-0.0025	-0.0002	0.00251	4.890
3.75	-0.0055	0.0012	0.00570	2.903	-0.0033	0.0002	0.00321	4.692
2.25	-0.0065	-0.0023	0.00680	2.987	-0.0024	0.0012	0.00268	4.571
2.75	-0.0050	-0.0066	0.00885	2.926	-0.0033	-0.0031	0.00330	4.470
2.25	-0.0088	-0.0066	0.01033	2.980	-0.0035	-0.0001	0.00390	4.265
1.75	-0.0112	-0.0051	0.01443	2.909	-0.0050	-0.0002	0.00500	4.086
1.25	-0.0146	-0.0122	0.01640	2.907	-0.0033	0.0017	0.00371	3.882

Z3	X-ACT	Y-ACT	TIP
1.00	-0.0020	0.0001	0.00200
3.00	-0.0003	-0.0060	0.00401

BASE THICKNESS (IN) 1.520

PROJECTILE LENGTH (IN) 14.662

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM MUSE (IN)

Z3 IS DISTANCE FROM MUSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/28 MK 56-D LOT 56 PROJECTILE B7

INSPECTION DATE 11/10/70

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	(- - - - INSIDE - - - - -)				(- - - - OUTSIDE - - - - -)			
Z1	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.00	0.0115	-0.0085	0.01420	2.950	0.0013	-0.0002	0.00132	4.983
2.00	0.0165	-0.0035	0.01687	2.969	0.0027	0.0014	0.00304	5.122
3.00	0.0087	-0.0043	0.00970	2.984	0.0043	0.0025	0.00497	5.123
4.00	0.0047	-0.0056	0.00731	2.997	-0.0019	-0.0007	0.00202	4.986
5.00	0.0001	-0.0040	0.00490	2.914	-0.0012	0.0	0.00120	4.956
6.00	0.0012	-0.0046	0.00475	2.820	-0.0002	0.0001	0.00022	4.944
7.00	-0.0012	-0.0054	0.00553	2.920	0.0006	0.0002	0.00063	4.963
8.00	-0.0031	-0.0070	0.00746	2.929	-0.0016	0.0	0.00160	4.962
9.00	-0.0047	-0.0100	0.01105	2.927	-0.0011	-0.0002	0.00112	4.952

	(- - - - INSIDE - - - - -)				(- - - - OUTSIDE - - - - -)			
Z2	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	-0.0062	-0.0104	0.01424	2.940	0.0001	0.0004	0.00041	4.984
4.75	-0.0044	-0.0147	0.01411	2.900	-0.0013	-0.0001	0.00130	4.888
3.75	-0.0037	-0.0135	0.01604	2.917	-0.0021	-0.0002	0.00211	4.702
2.25	-0.0084	-0.0100	0.01204	2.708	-0.0010	0.0004	0.00108	4.580
2.75	-0.0050	-0.0057	0.01057	2.949	-0.0007	0.0001	0.00071	4.427
2.25	-0.0042	0.0002	0.00620	2.900	-0.0013	-0.0003	0.00192	4.273
1.75	-0.0053	0.0040	0.00801	2.922	0.0002	0.0002	0.00028	4.092
1.25	-0.0057	0.0074	0.00934	2.951	-0.0009	0.0003	0.00095	2.892

Z3 X-ACT Y-ACT TIP

1.00	-0.0057	-0.0008	0.00574
7.00	-0.0138	-0.0059	0.01682

BASE THICKNESS (IN) 0.556

PROJECTILE LENGTH (IN) 16.495

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

APPENDIX C

Histograms and Statistics of Inspection Data

N 155
 MEAN 2.96048
 MEDIAN 2.97300
 MAXIMUM 3.11300
 RANGE
 VARIANCE
 STD. DEV.
 COEF. VAR.
 SKENESS
 NO. OF CELLS 10
 .41200
 .00349
 .05918
 2.70100
 .01996
 -.91328

CELL. MID.	FREQ
2.7010	1 X
2.7469	0
2.7926	2 X
2.8383	3 XX
2.8941	23 XXXXXXXXXXXXX
2.9299	30 XXXXXXXXXXXXXXXX
2.9757	57 XXXXXXXXXXXXXXXXXXXX
3.0214	32 XXXXXXXXXXXXXXXXXXXX
3.0572	6 XXX
3.1130	1 X

HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

1.9 Inches From Base

N 155
 MEAN 3.36806
 MEDIAN 3.36830
 MAXIMUM 3.39500
 RANGE .05600
 VARIANCE .00000
 STD. DEV. .00967
 MINIMUM 3.33400
 COEF. VAR. .00297
 SKWNESS -.34379
 NO. OF CELLS 10

CELL. MID.	FREQ	Y
3.3340	1	Y
3.3402	2	
3.3464	3	XY
3.3527	7	XXXXX
3.3589	32	XXXXXXXXXXXXXXXXXXXXXX
3.3651	39	XXXXXXXXXXXXXXXXXXXXXX
3.3713	22	XXXXXXXXXXXXXXXXXXXXXX
3.3776	36	XXXXXXXXXXXXXXXXXXXXXX
3.3838	11	XXXXXXXXXX
3.3900	4	XXX

HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

2.9 Inches From Base

N	155					
MEAN	3.49615	STANDARD	0.16109	CORR. VAR.	.00273	
MEDIAN	3.49630	STANDARD	0.00309	SKWENESS	.16092	
MAXIMUM	3.52330	MINIMUM	3.46220	NO. OF CELLS	10	

CELL. MID.	FREQ	
3.4620	3	XX
3.4639	7	XXXXX
3.4750	21	XXXXXXXXXXXXXX
3.4823	44	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.4891	33	XXXXXXXXXXXXXXXXXXXXXXXXXX
3.4959	38	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.5027	7	XXXXXX
3.5094	1	Y
3.5162	2	
3.5230	1	X

HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

3.9 Inches From Base

N	155				
MEAN	3.60480	RANGE	.11300	DEF. VAR.	.00344
MEDIAN	3.60400	VARIANCE	.00015	SKWNESS	2.52234
MAXIMUM	3.59900	STD. DEV.	.01239	NO. OF CELLS	10
		MINIMUM	3.57600		

CELL. MID.	FREQ	
3.5760	1	X
3.5885	24	XXXXXXXXXX
3.6011	75	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.6137	48	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.6262	3	Y
3.6388	2	X
3.6513	1	X
3.6639	0	
3.6764	0	
3.6890	1	X

4

HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

4.9 Inches From Base

N	155	RANGE	.15750	COEFF. VAR.	.30531
MEAN	3.72326	VARIANCE	.00055	STANDARD DEV.	3.12195
MEDIAN	3.71900	MINIMUM	3.60400	NO. OF CELLS	10
MAXIMUM	3.84700				

CELL. MID.	FREQ	
3.6940	5	XX
3.7110	74	XXXXXXXXXXXXXXXXXXXXXXXXXX
3.7280	65	XXXXXXXXXXXXXXXXXXXXXXXXXX
3.7450	0	
3.7620	2	X
3.7790	2	X
3.7960	7	XXXX
3.8130	1	X
3.8300	2	XX
3.8470	1	X

HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

5.9 Inches From Base

N	155				
MEAN	3.83444	AVG	3.81000	DIFF. VAD.	.00590
MEDIAN	3.83500	VARIANCE	.00049	SKENESS	3.69269
MAXIMUM	3.99400	STL. OF	.02225	NO. OF CELLS	10
		MINIMUM			

CELL. MIN.	FRQ	
3.8100	11	xxx
3.8304	96	xxx
3.8509	38	xxx
3.8713	2	xx
3.8918	4	x
3.9122	2	x
3.9327	0	
3.9531	1	x
3.9736	0	
3.9940	1	x

HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

6.9 Inches From Base

N 155
 MEAN 3.92401
 MEDIAN 3.92300
 MAXIMUM 3.99400
 RANGE .03900
 VARIANCE .0013
 STD. DEV. .01140
 MINIMUM 3.90500
 CORR. / ADJ. .00200
 SKWNESS 2.87985
 NO. OF CELLS 10

CELL. MID.	FREQ	
3.9050	2	X
3.9149	47	XXXXXXXXXXXXXXX
3.9248	84	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.9347	12	XXXX
3.9446	5	XX
3.9544	2	X
3.9643	0	
3.9742	2	X
3.9841	1	
3.9940	1	X

HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

7.9 Inches From Base

N	155					
MEAN	3.92680	RANGE	.08700	COEF. VAR.	.00289	
MEDIAN	3.92500	VA RANGE	.00013	SKWNESS	2.61721	
MAXIMUM	3.99400	STD. DEV.	.01136	NO. OF CELLS	10	
		MINIMUM	3.90700			

CELL. MIN.	FREQ	
3.9070	2	X
3.9167	52	XXXXXXXXXXXXXXXXXXXXX
3.9263	57	XXXXXXXXXXXXXXXXXXXXX
3.9360	22	XXXXXXXXXXXXX
3.9457	7	XXXXX
3.9553	1	X
3.9650	1	X
3.9747	2	XX
3.9843	3	XXX
3.9940	1	X

HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA 8.9 Inches From Base

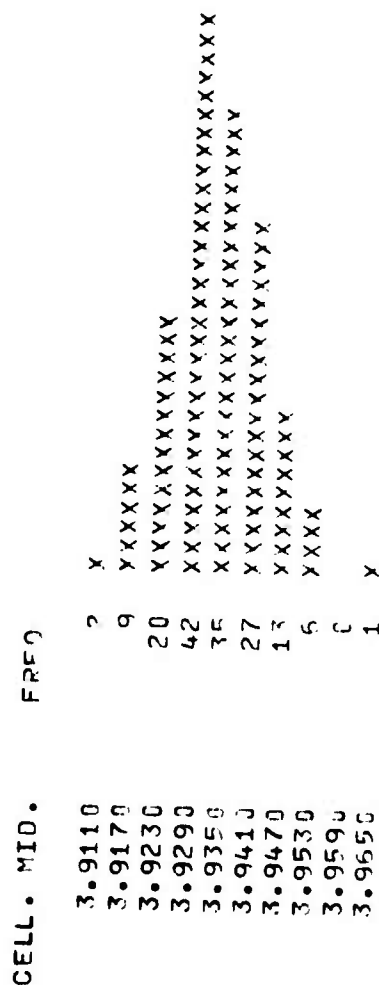
N	155				
MEAN	3.93085	RANGE	.09600	COEFF. VAR.	.30279
MEDIAN	3.92900	VARIANCE	.00012	SKENNESS	1.95727
MAXIMUM	3.99400	STD. DEV.	.01098	NO. OF CELLS	10
		MINIMUM	3.90800		

CELL. MID.	FREQ	
3.9080	1	X
3.9176	31	XXXXXXXXXXXXXXXXXXXX
3.9271	58	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.9367	47	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.9462	12	XXXXXXXXXXXXXXXXXXXX
3.9558	3	XX
3.9653	2	X
3.9749	0	
3.9844	0	
3.9940	1	X

HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

9.9 Inches From Base

N	155				
MEAN	3.93421	RANGE	.05401	COEF. VAR.	.00235
MEDIAN	3.93500	VARIANCE	.00509	SKEWNESS	.27867
MAXIMUM	3.96500	STD. DEV.	.02228	NO. OF CELLS	10
		MINIMUM	3.91100		

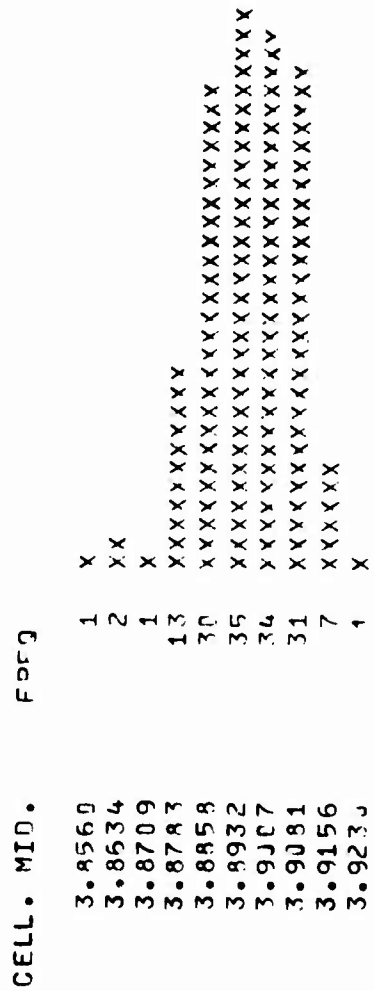


C-10

HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

5.75 Inches From Nose

N	155	RANGE	.05700	COEFF. VAR.	.00294
MEAN	3.89557	VARIANCE	.00113	SKEWNESS	-.40332
MEDIAN	3.89600	STD. DEV.	.01143	NO. OF CELLS	10
MAXIMUM	3.92300	MINIMUM	3.85600		



HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA
4.75 Inches From Nose

• 00943
• 37453
11

CONF. VAP.
SKENWISS
UD. OF CELLS

• 16400
• 00124
• 03510
• 05310

MINIMUM
ST. 15
MATERIAL
RANGE

155
3.73527
3.72900
3.81700

CELL. MID.	FREQ
3.6530	2
3.6712	3
3.6994	10
3.7077	31
3.7259	37
3.7441	25
3.7623	18
3.7806	9
3.7388	8
3.8170	5

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HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

3.75 Inches From Nose

N	155					
MEAN	3.46995	RANGE	.16300	COEFF. VAR.	.30977	
MEDIAN	3.47100	VARIANCE	.00105	SKEWNESS	-.06919	
MAXIMUM	3.54900	STD. DEV.	.03238	NO. OF CELLS	10	
		MINIMUM	3.38600			

CELL. MID.	FREQ
3.3860	2
3.4041	5
3.4222	12
3.4403	20
3.4584	33
3.4765	33
3.4947	23
3.5128	17
3.5309	9
3.5490	1

HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

2.75 Inches From Nose

N 155
 MEAN 2.92938
 MEDIAN 2.93420
 MAXIMUM 3.04100
 RANGE 0.11162
 VARIANCE .00242
 STD. DEV. .04922
 COEFF. VAR. .01690
 SKENESS -.27312
 NO. OF CELLS 13

CELL. MID.	FREQ
2.8340	3
2.8303	4
2.8567	14
2.8930	22
2.9093	22
2.9357	29
2.9620	37
2.9883	19
3.0147	8
3.0410	1

HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

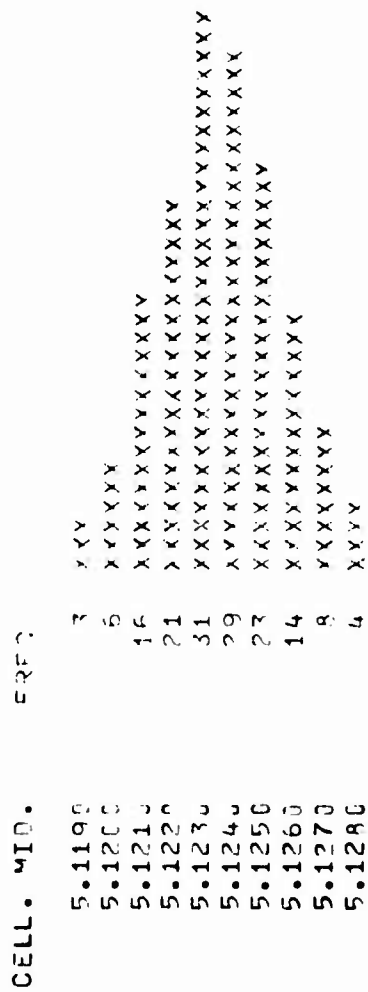
1.75 Inches From Nose

N 155
 MEAN 4.98307
 MEDIAN 4.98300
 MAXIMUM 4.98900
 RANGE
 VARIANCE
 STD. DEV.
 MINIMUM
 COEF. VAR.
 SKEWNESS
 NO. OF CELLS 10
 .01200
 .00000
 .00211
 4.97600
 .00042
 -.38171

CELL. MID.	FREQ
4.9760	1
4.9773	1
4.9787	5
4.9800	8
4.9813	19
4.9827	48
4.9840	39
4.9853	15
4.9867	18
4.9880	1

HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA
 1.9 Inches From Base

N	155	RANGE	.00000	CORR. VAR.	.00079
MEAN	5.12355	VA-TANCE	.00000	SKENNESS	.J4174
MEDIAN	5.12430	STD. DEV.	.J220	NO. OF CELLS	10
MAXIMUM	5.12830	MINIMUM	5.11900		



HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

2.9 Inches From Base

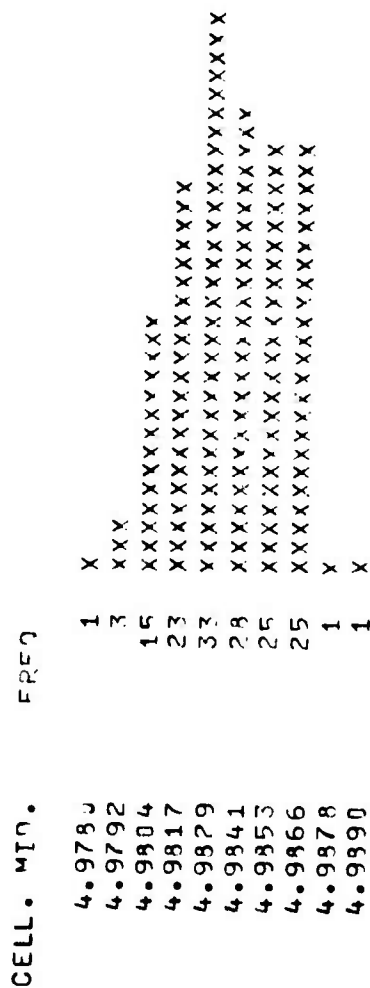
N 155
 MEAN 5.12383
 MEDIAN 5.12402
 MAXIMUM 5.12800
 RANGE
 VARIANCE
 STD. DEV.
 MINIMUM
 COEFF. VAP.
 SKENNESS
 NO. OF CELLS 10

CELL. MID.	FREQ
5.1190	3
5.1200	11
5.1210	16
5.1220	11
5.1230	24
5.1240	29
5.1250	22
5.1260	21
5.1270	14
5.1280	5

HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

3.9 Inches From Base

N	155					
MEAN	4.98362	RANGE	.01110	COEFF. VAR.	.00339	
MEDIAN	4.98400	VARIANCE	.00009	SKEWNESS	-.15308	
MAXIMUM	4.98900	STD. DEV.	.00197	NO. OF CELLS	10	
		MINIMUM	4.97800			



HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

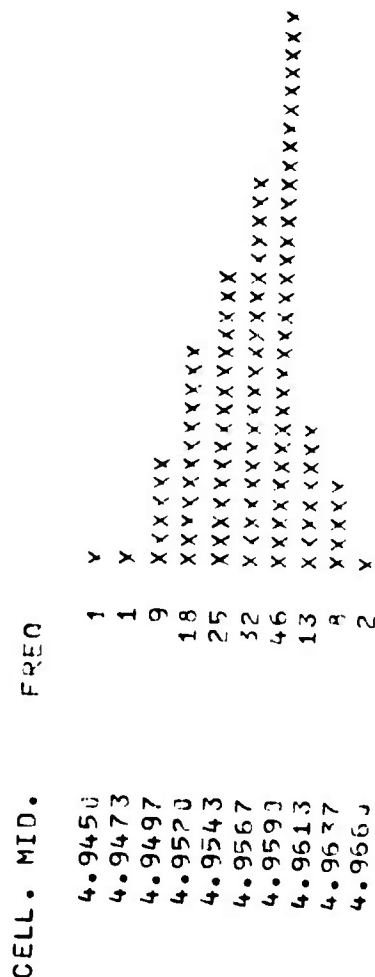
4.9 Inches From Base

N	155					
MEAN	4.95701					
MEDIAN	4.95700					
MAXIMUM	4.95600					
		RANGE				
		VARIANCE	.01700		COEFF. VAR.	.00072
		STD. DEV.	.00001		SKENNESS	-.01374
		MINIMUM	4.94900		NO. OF CELLS	10

CELL. MID.	FREQ	
4.9490	3	XX
4.9509	9	XXXXXXXX
4.9528	14	XXXXXXXXXX
4.9547	27	XXXXXXXXXXXX
4.9566	28	XXXXXXXXXXXX
4.9584	37	XXXXXXXXXXXX
4.9603	23	XXXXXXXXXXXX
4.9622	9	XXXXXXXXXX
4.9641	2	XX
4.9660	2	XX

HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA
5.9 Inches From Base

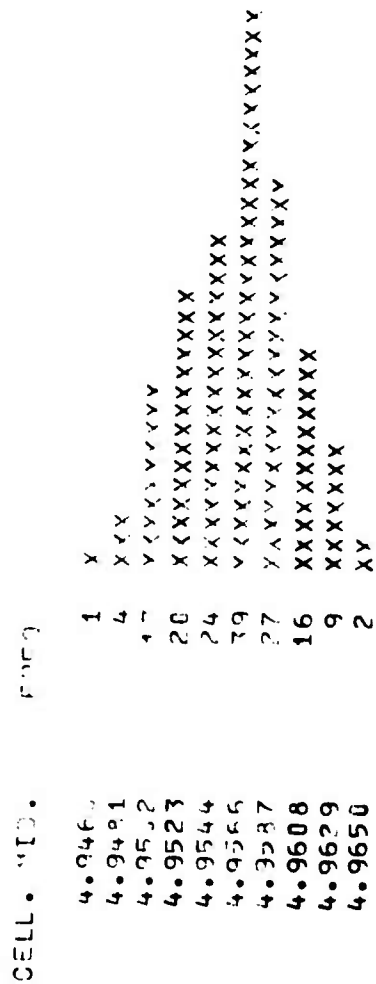
N	150				
MEAN	4.95674	RANGE	.02100	CONF. MAX.	.00378
MEDIAN	4.95700	MAXIMUM	.00701	SKWNESS	-.24414
MAXIMUM	4.95609	MINIMUM	4.94500	NO. OF CELLS	11



HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

6.9 Inches From Base

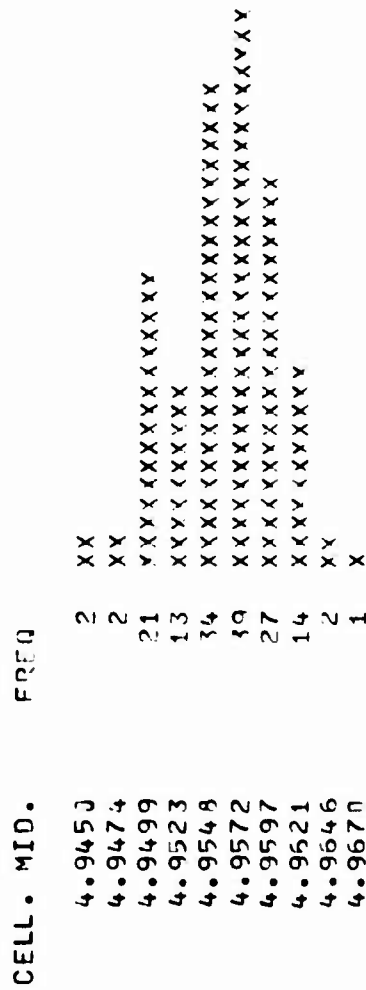
N	155					
MEAN	4.95612	RANGE	.01000	CONF. VAP.	.00074	
MEDIAN	4.95600	VARIANCE	.00001	SKWNESS	-.12845	
MAXIMUM	4.96500	STD. DEV.	.00365	NO. OF CELLS	17	
		MINIMUM	4.94500			



HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

7.9 Inches From Base

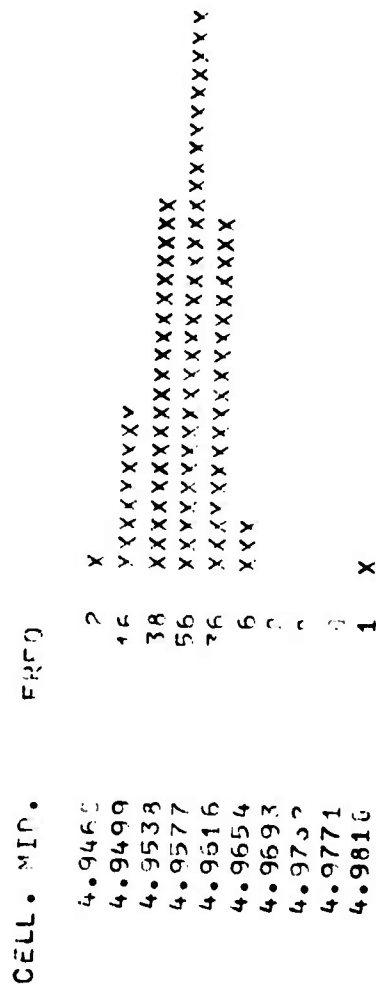
N	155	RANGE	.12200	COEFF. VAR.	.00092
MEAN	4.95532	VARIANCE	.00002	SKEWNESS	-.14160
MEDIAN	4.95600	STD. DEV.	.01406	NO. OF CELLS	10
MAXIMUM	4.96700	MINIMUM	4.94500		



HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

8.9 Inches From Base

N	155	RANGE	.03500	COEF. VAR.	.00093
MEAN	4.95697	VARIANCE	.00002	SKENNESS	.70097
MEDIAN	4.95750	STD. DEV.	.00460	NO. OF CELLS	10
MAXIMUM	4.98100	MINIMUM	4.94600		



HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA
9.9 Inches From Base

N	155	RANGE	.00700	COEF. VAR.	.00030
MEAN	4.98341	VARIANCE	.00000	SKENNESS	.00596
MEDIAN	4.98300	STD. DEV.	.00150	NO. OF CELLS	10
MAXIMUM	4.98700	MINIMUM	4.98000		

CELL. MIN.	FREQ
4.9800	4
4.9808	10
4.9816	0
4.9823	31
4.9831	35
4.9839	37
4.9847	27
4.9854	0
4.9862	8
4.9870	2

HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

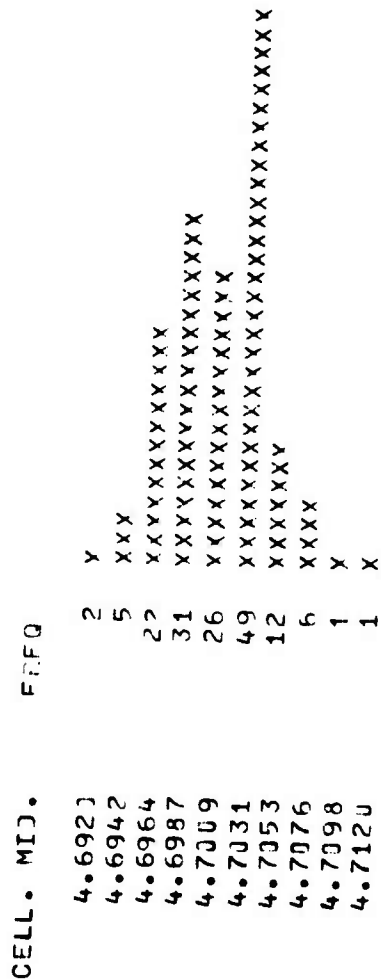
5.75 Inches From Nose

CELL. MID.	FRFQ
4.8800	6 XXXXX
4.8821	15 XXXXXXXXXX
4.8842	28 XXXXXXXXXXXXXXXXXX
4.8863	32 XXXXXXXXXXXXXXXXXX
4.8884	37 XXXXXXXXXXXXXXXXXX
4.8906	22 XXXXXXXXXXXXXXXXXX
4.8927	9 XXXXXX
4.8948	5 XXXXX
4.8969	0
4.8990	2 XX

HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

4.75 Inches From Nose

N	155					
MEAN	4.70671		RANGE	.02000	COEFF. VAR.	.00074
MEDIAN	4.70100		VARIANCE	.00001	SKEWNESS	.16300
MAXIMUM	4.71200		STD. DEV.	.00346	NO. OF CELLS	40
			MINIMUM	4.69200		



HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

3.75 Inches From Nose

N	155					
MEAN	4.43771	RANGE	.02310	COEF. VAR.	.00197	
MEDIAN	4.43700	VARIANCE	.00001	SKEWNESS	.22722	
MAXIMUM	4.44955	STD. DEV.	.00387	NO. OF CELLS	17	
		MINIMUM	4.42639			

CELL. MID.	FREQ	
4.4260	1	X
4.4286	2	X
4.4311	18	XXXXXXXXXX
4.4337	19	XXXXXXXXXXXX
4.4362	47	XXXXXXXXXXXXXXXXXXXXXXX
4.4388	42	XXXXXXXXXXXXXXXXXXXXXXX
4.4413	15	XXXXXXXXXXXXXXX
4.4439	7	XXXXX
4.4464	1	X
4.4490	3	XX

HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

2.75 Inches From Nose

N	155				
MEAN	4.09380	RANGE	.02300	COEFF. VAR.	.00110
MEDIAN	4.09400	VARIANCE	.00002	SKENNESS	.04351
MAXIMUM	4.10500	STDEV.	.01452	NO. OF CELLS	10
		MINIMUM	4.08200		

CELL. MID.	FREQ	
4.0820	2	X
4.0846	4	XXX
4.0871	11	XXXXXXX
4.0897	20	XXXXXXXXXX
4.0922	33	XXXXXXXXXXXXXX
4.0948	46	XXXXXXXXXXXXXXXXXX
4.0973	21	XXXXXXXXXXXXXX
4.0999	9	XXXXX
4.1024	7	XXXXX
4.1050	3	XX

HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

1.75 Inches From Nose

N		155			
MEAN	.01459		RANGE	.0580	
MEDIAN	.01263		VARIANCE	.0009	
MAXIMUM	.05270		STD. DEV.	.03052	
			MINIMUM	.00190	
					CORR. VAR.
					SKEWNESS
					NO. OF CELLS
					10
					1.50730
					.05612

CELL. MID.	FRQ
•0319	15
•0975	44
•0132	44
•0198	29
•0245	7
•0301	6
•0358	4
•0414	2
•0471	2
•0527	1

HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

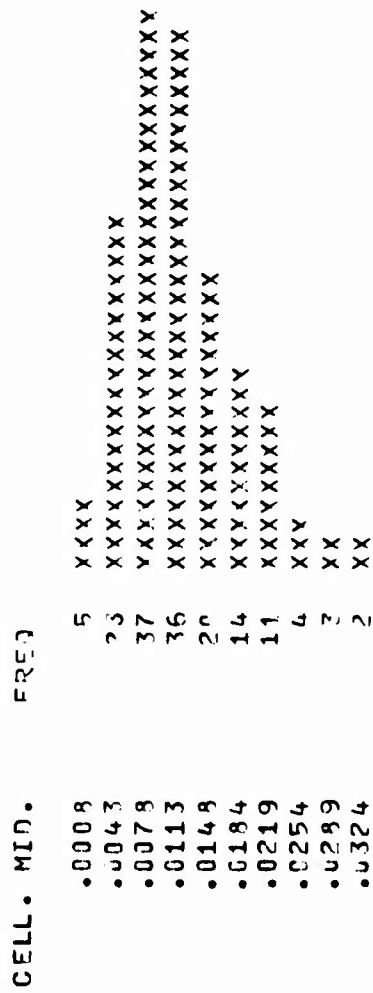
1.9 Inches From Base

N	125	MEAN	.01293	STDEV	.04610	COEF. VAR.	.58594
MEAN			.01293	VARIANCE	.00210	SKEWNESS	1.20425
MEDIAN			.01157	STD. DEV.	.02750	KURTOSIS	17
MAXIMUM			.04643	MINIMUM	.00000		

CELL.	MID.	FREQ	
.0003		1	xxx
.0054		41	xxxxxx
.0105		46	xxxxxx
.0157		33	xxxxxx
.0208		19	xxxxxx
.0259		4	xxx
.0310		4	xxx
.0362		2	x
.0413		0	
.0464		1	x

HISTOGRAM AND STATISTICS OF INSIDE TIR DATA
2.9 Inches From Base

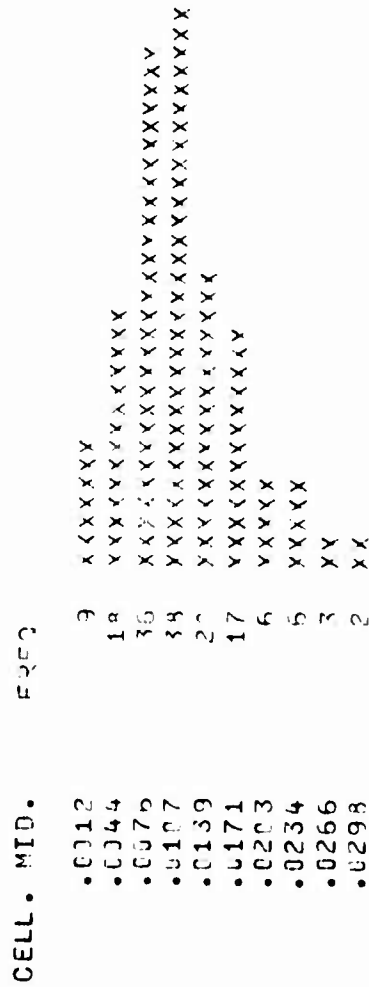
N	155				
MEAN	.01106	PAGE	.03160	CONF. VAR.	.54399
MEDIAN	.01063	VARIANCE	.00004	SKENNESS	.99583
MAXIMUM	.03243	STD. DEV.	.00657	NO. OF CELLS	11
		MINIMUM	.00380		



HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

3.9 Inches From Base

N	155	RANGE	.02468	COEF. VAR.	.53293
MEAN	.01134	VARIANCE	.00064	SKWNESS	.81649
MEDIAN	.01057	ST. DEV.	.025607	NO. OF CELLS	19
MAXIMUM	.02930	MINIMUM	.00123		



HISTOGRAM AND STATISTICS OF INSIDE TIR DATA
4.9 Inches From Base

N	155	RANGE	.02790	COFF. VAR.	.53437
MEAN	.01091	VARIANCE	.00003	SKENNESS	.68122
MEDIAN	.01040	STD. DEV.	.00593	NO. OF CELLS	10
MAXIMUM	.02870	MINIMUM	.00090		

CELL. MID.	FREQ
.0068	6
.0039	26
.0070	24
.0101	36
.0132	31
.0163	13
.0194	7
.0225	9
.0256	2
.0287	2

HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

5.9 Inches From Base

N	155				
MEAN	31381	•	32400	COFF. VAR.	• 55614
MEDIAN	31063	•	33303	SEMI-SS	• 46523
MAXIMUM	32563	•	33547	• IF CELLS	13
		•	30072		
		MINIMUM			
		STDEV			
		VARIANCE			
		COV			

[illegible]

HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

6.9 Inches From Base

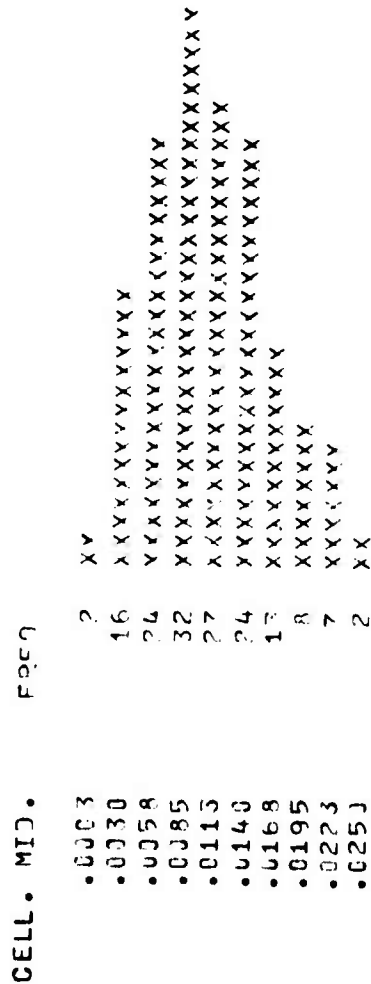
N 155
 MEAN .01092
 MEDIAN .01100
 MAXIMUM .02590
 RANGE .02460
 VARIANCE .00003
 STD. DEV. .00539
 MINIMUM .00130
 COEF. VAR. .49326
 SKEWNESS .39177
 NO. OF CELLS 13

CELL. MIN.	FREQ	
.0013	4	XXXX
.0040	29	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
.0069	14	XXXXXXXXXXXXXXXXXXXX
.0095	33	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
.0122	32	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
.0150	24	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
.0177	10	XXXXXXXXXX
.0204	5	XXXXX
.0232	6	XXXXXX
.0259	1	X

HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

7.9 Inches From Base

N	135	RANGE	.02478	COEFF. VAR.	.48958
MEAN	.01097	VARIANCE	.00003	SKETCHES	.39665
MEDIAN	.01060	STD. DEV.	.00537	NO. OF CELLS	12
MAXIMUM	.02500	MINIMUM	.00035		



HISTOGRAM AND STATISTICS OF INSIDE TIR DATA
8.9 Inches From Base

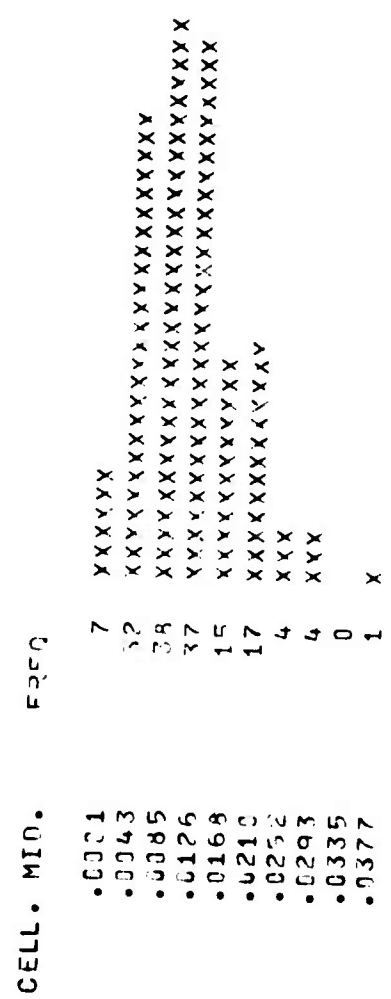
N	155	RANGE	.04150	COEF. VAR.	.57970
MEAN	.01299	VARIANCE	.00006	SKEWNESS	1.03132
MEDIAN	.01100	STD. DEV.	.00746	NO. OF CELLS	10
MAXIMUM	.04310	MINIMUM	.00160		

CELL. MIN.	FREQ	
.0016	9	XXXXXX
.0062	42	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
.0108	37	XXXXXXXXXXXXXXXXXXXXXXXXXXV
.0154	53	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
.0200	16	XXXXXXXXXXXX
.0247	10	XXXXXX
.0293	5	XXXX
.0339	2	X
.0385	.	
.0431	1	X

HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

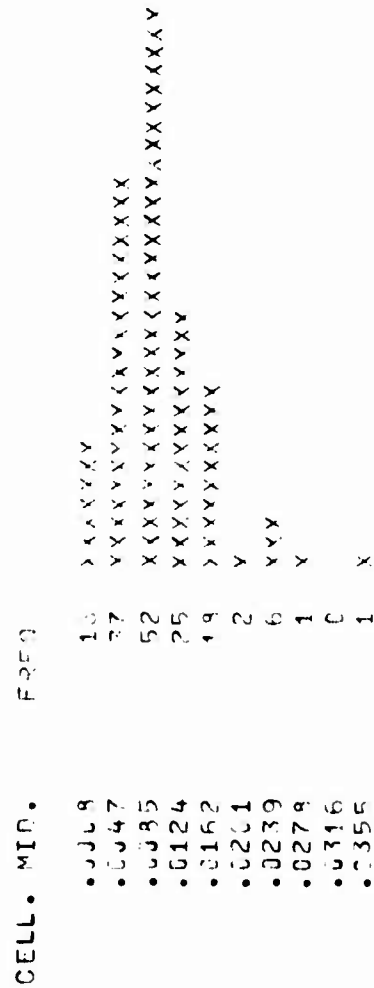
5.75 Inches From Nose

N	155	MEAN	.01149	VAR.	.03760	COEF. VAR.	.69245
		MEDIAN	.01070	STO. DEV.	.07005	SKENWESS	.89310
		MAXIMUM	.03770	MINIMUM	.00602	NO. OF CELLS	10



HISTOGRAM AND STATISTICS OF INSIDE TIR DATA
4.75 Inches From Nose

N	155	AVG	.13471	COEFF. VAR.	.60755
MEAN	.00954	VARIANCE	.00103	SKWESS	1.27582
MEDIAN	.01850	STDEV.	.00592	NO. OF CELLS	10
MAXIMUM	.03350	MINIMUM	.00000		



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HISTOGRAM AND STATISTICS OF INSIDE TIR DATA
3.75 Inches From Nose

N	155					
MEAN	.01024	RANGE	.03370	COEF. VAR.	.56357	
MEDIAN	.00930	VARIANCE	.00063	SKENNESS	1.10709	
MAXIMUM	.03470	STD. DEV.	.00577	NO. OF CELLS	10	
		MINIMUM	.00100			

CELL. MID.	FREQ
.0010	12
.0047	27
.0085	52
.0122	29
.0160	18
.0197	11
.0235	3
.0272	1
.0310	1
.0347	1

HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

2.75 Inches From Nose

N	155					
MEAN	.01313	RANGE	.03430	COEFF. VAR.	.57015	
MEDIAN	.01170	VARIANCE	.00006	SKEWNESS	1.01775	
MAXIMUM	.03620	STD. DEV.	.00748	NO. OF CELLS	10	
		MINIMUM	.00190			

CELL. MID.	FREQ	
.0019	9	XXXXXXXX
.0057	26	XXXXXXXXXXXXXXXXXXXX
.0095	41	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
.0133	31	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
.0171	21	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
.0210	12	XXXXXXXXXXXX
.0248	3	XX
.0286	4	XXX
.0324	6	XXXX
.0362	2	X

HISTOGRAM AND STATISTICS OF INSIDE TIR DATA
1.75 Inches From Nose

N 156
 MEAN 1.53226
 MEDIAN 1.53250
 MAXIMUM 1.62600
 RANGE 1.0110
 VARIANCE .00137
 STD. DEV. .03765
 MINIMUM 1.43500
 COEFF. VAR. .02418
 SKEWNESS -.02148
 NO. OF CELLS 10

CELL. MID.	FREQ	
1.4350	1	X
1.4562	7	XXXXX
1.4774	9	XXXXXXX
1.4987	23	XXXXXXXXXXXXXXX
1.5199	33	XXXXXXXXXXXXXXXXXXXXX
1.5411	39	XXXXXXXXXXXXXXXXXXXXXXX
1.5623	24	XXXXXXXXXXXXXXXXXXXXX
1.5836	13	XXXXXXXXXXXXX
1.6048	4	XX
1.6260	3	XX

HISTOGRAM AND STATISTICS OF BASE THICKNESS DATA

[illegible]

CELL. MID.	FREQ	
16.4930	1	X
16.5189	2	X
16.5448	1	X
16.5707	6	XXXX
16.5966	24	XXXXXXXXXX
16.6224	0	
16.6483	65	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
16.6742	52	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
16.7001	4	XXXX
16.726J	1	X

HISTOGRAM AND STATISTICS OF PROJECTILE LENGTH DATA